

NYMNPA

14/03/2019

From: James Cox
Sent: 14 March 2019 14:54
To: Rob Smith
Cc: Robert Staniland
Subject: RE: NYM/2019/0041/CVC - Woodsmith Mine Phase 9 - Response to LLFA Comments [NLP-DMS.FID262297]

Rob.

As requested, please find attached an updated version of the Phase 9 Remedial Action Plan that now includes MPA and NE as parties to be notified within Table 3.

Notwithstanding the response from LLA, please let me know if there are any other matters that remain outstanding, prior to you being able to determine the application.

Kind regards,

James Cox
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NYMNP

14/03/2019

**SIRIUS MINERALS PLC - DISCHARGE OF PLANNING CONDITIONS FOR
PLANNING PERMISSION NYM/2014/0676/MEIA (AS VARIED BY
NYM/2017/0505/MEIA),
NORTH YORKSHIRE POLYHALITE PROJECT**

CONDITION	NYMNP 46
REPORT	REMEDIAL ACTION PLAN (NYMNP 46 – PHASE 9)
SITE	PHASE 9 WORKS AT WOODSMITH MINE, NORTH YORKSHIRE
DOCUMENT NUMBER	40-FWS-WS-70-WM-PL-0021

1433DevOR428 Rev02/March 2019

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PROJECT NUMBER	1433	
PROJECT TITLE	NORTH YORKSHIRE POLYHALITE PROJECT	
CLIENT	Sirius Minerals plc Resolution House Lake View Scarborough YO11 3ZB	
REPORT TITLE	Remedial Action Plan (NYMNPAs 46 – Phase 9)	
REPORT REFERENCE	1433DevOR428	
DOCUMENT NUMBER	40-FWS-WS-70-WM-PL-0021	
REVISION	Date	Approved
REV02	14/03/2019	RIL

NYMNPAs

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<p>NYMNPA</p> <p>14/03/2019</p>

REMEDIAL ACTION PLAN (NYMNPA PHASE 46 - PHASE 9)

1 INTRODUCTION

NYMNPA

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1.1 General Background

This document has been prepared on behalf of Sirius Minerals Plc and provides an addendum to the Remedial Action Plan for the Phase 4a Works at Woodsmith Mine (Ref. 1) to include the additional remedial actions required to accommodate for the Phase 9 Works that will run concurrently with the Phase 5 to 8 works. The scope of the Phase 9 Works is detailed in Section 1.3. This is required to satisfy Condition 46 of the North York Moors National Park Authority (NYMNPA) planning permission NYM/2014/0676/MEIA (as varied by NYM/2017/0505/MEIA).

This document details the remedial actions required should monitoring, undertaken in accordance the Ground and Surface Water Monitoring Scheme for the Phase 9 Works (Ref. 2), identify breaches of the defined Control Trigger Values.

1.2 Objectives

The purpose of this document is to:-

- Provide a list of individuals (and their contact details) who are responsible for identifying and investigating a Trigger Value breach.
- Provide a procedure for investigating and escalating a Trigger Value breach, and for informing the appropriate regulator (the Environment Agency).
- Provide a list of individuals and organisations to be informed in the event of a breach or a confirmed departure from the established baseline.
- Detail actions to protect the environment in the event of a suspected or confirmed environmental incident or departure from the established baseline.

1.3 Phase 9 Works

The Phase 9 Works will be undertaken concurrently with the Phase 5 to 8 works and the element that may require additional remedial action includes the following:-

- installation and operation of first stage of non-domestic waste water treatment plant (NDWWTP).

1.4 Compliance with Conditions

Table 1 sets out the wording of Planning Condition 46 to Planning Consent Ref. No. NYM/2014/0676/MEIA (as varied by NYM/2017/0505/MEIA) and details where the relevant material, to comply with this condition, has been provided within this report:-

Table 1 - Summary of Planning Condition 46 and where Relevant Details are provided in the Report

NYMNP 46	Compliance with Condition 46
The scheme shall include: -	
Prior to commencement of each Phase of Construction at Doves Nest Farm a Remedial Action Plan, setting out the remedial actions to be taken in the event that any monitoring triggers of the approved Construction and operation Phase Ground and Surface Water Monitoring Scheme are exceeded, shall be submitted to and approved in writing by the MPA in consultation with the Environment Agency.	Sections 1 to 6
Should any monitoring results exceed those triggers set out in the approved Construction and Operation Phase Ground and Surface Water Monitoring Scheme, the MPA, the Environment Agency and Natural England shall be informed as soon as possible, and the approved Remedial Action Plan shall thereafter be implemented as soon as possible and within one month of the relevant monitoring trigger having been exceeded. Following remedial action, monitoring in accordance with the Construction and Operation Phase Ground and Surface Water Monitoring Scheme will be undertaken in accordance with the timescale to be submitted to and approved by the MPA in consultation with the Environment Agency, the results of which shall be reported to the MPA within four weeks of the monitoring date.	Sections 2 to 5

2 RESPONSIBILITIES AND CONTACTS

2.1 Parties Responsible for Identifying and Investigating a Trigger Value Breach

Table 2 presents the details of the individuals and their contact information for the parties responsible for identifying and investigating a Trigger Value breach.

Table 2 - Parties Responsible for Identifying and Investigating a Trigger Value Breach

Contact Name	Position	Company	Contact Details	Responsibility
Robert Staniland	Environment Manager	Sirius Minerals	Resolution House Lake View	Coordination of Environmental Activities within the Development
Robert Staniland	Environment Manager	Sirius Minerals	Scarborough YO11 3ZB +44 7775585456	Monitoring of ground and surface water in accordance with the Ground Water Management Scheme.
Grahame Clarke	Project Manager	Sirius Minerals		Operation of the NDWWTP

2.2 Parties to be informed in the Event of a Breach/Departure from Baseline Conditions

In accordance with Condition 46, Table 3 presents those individuals and organisations who are to be informed in the event of a breach:-

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Table 3 Parties to be informed in the Event of a Breach/Departure from Baseline Conditions

Contact Name	Position	Company/ Regulatory Body	Contact Details
Robert Staniland	Environment Manager	Sirius Minerals	Resolution House Lake View Scarborough YO11 3ZB +44 7775585456
Grahame Clarke	Project Manager	Sirius Minerals	
Fraser Thomlinson / Ruth Buckley	Planning Liaison Officer / Yorkshire Area Groundwater and Contaminated Land Team	Environment Agency	Lateral 8 City Walk Leeds LS11 9AT
Rob Smith,	Senior Minerals Planner	North York Moors National Park Authority	The Old Vicarage Bondgate Helmsley York North Yorkshire YO62 5BP
Merlin Ash	Yorkshire and Northern Lincolnshire Team	Natural England	Hornbeam House Crewe Business Park Electra Way Crewe Cheshire CW1 6GJ

3 PROCEDURE FOR EVALUATING BREACHES IN TRIGGER VALUES

3.1 General

A Phase 9 Groundwater and Surface Water Monitoring Scheme (Ref. 2) has been prepared that details the requirements for monitoring the surface water discharge from operation of the NDWWTP, which is treating construction waters generated from the shaft sinking works at the Service, Production and MTS shafts, prior to its discharge into the Sneaton Thorpe Beck surface water. This monitoring is to be undertaken in addition to the monitoring strategy already specified for groundwaters, spring waters and surface waters for the Phase 4a to 8 Works, as detailed in the Ground and Surface Water Monitoring Scheme for the Phase 4a to 8 Works (Refs. 3 and 4).

The Ground and Surface Water Monitoring Scheme (Ref. 2) details the Control and Compliance Trigger Values that the monitoring data will be assessed against.

Where breaches of the Control Trigger Values occur, the procedure to evaluate and record the remedial actions required, will be as set out in Section 3.1 of the Remedial Action Plan.

3.2 Surface Water Quality

3.2.1 Surface Water Quality Assessment Procedures

Appendix 1 presents the procedure for assessing breaches of surface water quality (SWQ) Control Trigger Values during the Phase 9 Works. It presents a summary of the sequence of activities and respective timescales for each stage, for which details are provided below.

3.2.2 Monitoring Appraisal

The purpose of the monitoring strategy of the discharge from the NDWWTP drainage system and the receiving surface water course, is to detect potential chemical and physical impacts of the discharge on Sneaton Thorpe Beck. In the event of an adverse impact being detected, the objective of the appraisal is to determine the cause, so that appropriate remedial measures can be adopted in the construction water pre-treatment system prior to discharge to the Shaft Platform surface water drainage system.

Monitoring will be undertaken, as detailed in Ref. 2, (Drawing 1433DevOD388, Appendix 1) including:-

- At the discharge point (OP9) to monitor the water quality from the NDWWTP.
- Upstream of the outflow point (STB6) to monitor the background water quality of Sneaton Thorpe Beck.
- Downstream of the outflow point, (STB1) to monitor the water quality entering and combining with Sneaton Thorpe Beck

Analytical testing in the field will consist of pH, temperature, electrical conductivity, total dissolved solids, turbidity and visual inspection of the monitoring locations. Samples will be analysed at a laboratory for:-

- pH,
- Conductivity,
- Suspended Solids,
- Chloride,
- Biological Oxygen Demand,
- Sulphate,
- Alkalinity as CaCO₃,
- Ammoniacal Nitrogen as NH₃,
- Arsenic,
- Cadmium, Chromium III,
- Chromium VI,
- Cobalt,
- Copper,
- Iron (dissolved),
- Lead,
- Mercury,
- Nickel,
- Zinc,
- EPH,
- Speciated Polycyclic Aromatic Hydrocarbons (including, Benzo(a)pyrene, fluoranthene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, and Naphthalene),

SWQ Control and Compliance Trigger Values are presented in Ref. 2. The NDWWTP will be inspected on a daily basis to ensure that it is in good working order. This will include as a

minimum oil interceptors, filters and associated tanks. Any visible impact on the surface water courses will be identified and considered in conjunction with the field turbidity readings and their respective background concentrations, such as cloudy discharge due to suspended solids.

The monitoring will be assessed by consideration of the construction/operation activities, as determined from a visual site inspection of the operations, and the meteorological conditions, to identify the cause of a specific breach.

3.2.3 Consultation with Project Manager and Planning Remedial Actions

The recorded breach of any SWQ Control Trigger Value and the findings of the inspection will be evaluated by the Environment Manager in consultation with the Project Manager to determine the cause of the breach and what appropriate course of remedial action will be taken.

The remedial actions will be designed specific to the cause and form of the breach in terms of pollution, erosion, siltation or adverse impact where the breach has been recorded.

3.2.4 Implementing Remedial Actions

Where remedial actions are specified, related to a breach in SWQ Control Trigger Values, they will be advised to the Director of Operations and the Environment Manager (as detailed in Section 2.2), and implemented by the Project Manager.

A natural (non-site related) breach of the SWQ Control Trigger Value may require an adjustment of the SWQ Control Trigger value, in line with the revised baseline conditions, as described in the Ground and Surface Water Management Scheme (Ref. 2).

Remedial actions for a breach of SWQ Control Trigger Values may include, but not be limited to, changes to the pre-treatment methodology for the construction waters generated from the shaft excavation works and maintenance of the NDWWTP.

4 REPORTING

All breaches in Surface Water Quality Control Trigger Values or visually identified impacts observed and remedial actions implemented will be reported on a weekly basis during the Phase 9 Works. That report will detail the breach that occurred, the weekly construction/operation activities and meteorological conditions preceding the breach, the results of the site inspection/monitoring, the established cause of the breach in Trigger Values and the remedial action specified together with the timescale for it to be implemented.

Where Control Trigger Value breaches are identified associated with the Phase 9 Works which run concurrently with Phases 5 to 8, a record of the insitu test results and site observations will be issued to those identified in Section 2.2 within 24 hours of the breach. Where visual evidence of adverse impacts associated with the Phase 9 Works are identified, the inspection report and remedial action specified and taken will be issued to those identified in Section 2.2 within 24 hours of that breach.

5 TIMESCALES

A cumulative report detailing the assessment of monitoring and inspection results for surface water quality, recording any breaches in Control Trigger Values or visually identified impacts observed and remedial actions to be implemented will be prepared on a weekly basis. The reports will be issued to the relevant regulators listed in Section 2.2 where a breach in Trigger Value or an impact is visually observed.

Control Trigger Value breaches will be investigated within one day and the remedial action required implemented within two days of receipt of the monitoring results reporting the breach.

C MILLER
ASSOCIATE DIRECTOR

R IZATT-LOWRY
DIRECTOR

6 REFERENCES

- 1 FWS Consultants Ltd. 2017. Remedial Action Plan for Woodsmith Mine Phase 4a Works (1433DevOR380).
- 2 FWS Consultants Ltd. 2019. Ground and Surface Water Monitoring Scheme for Woodsmith Mine Phase 9 Works (1433DevOR427).
- 3 FWS Consultants Ltd. 2018. Ground and Surface Water Monitoring Scheme for Woodsmith Mine Phase 4a Works (1433DevOR379).
- 4 FWS Consultants Ltd. 2018. Hydrological Risk Assessment for Woodsmith Mine Phase 7 Works (1433DevOR398).

APPENDIX 1

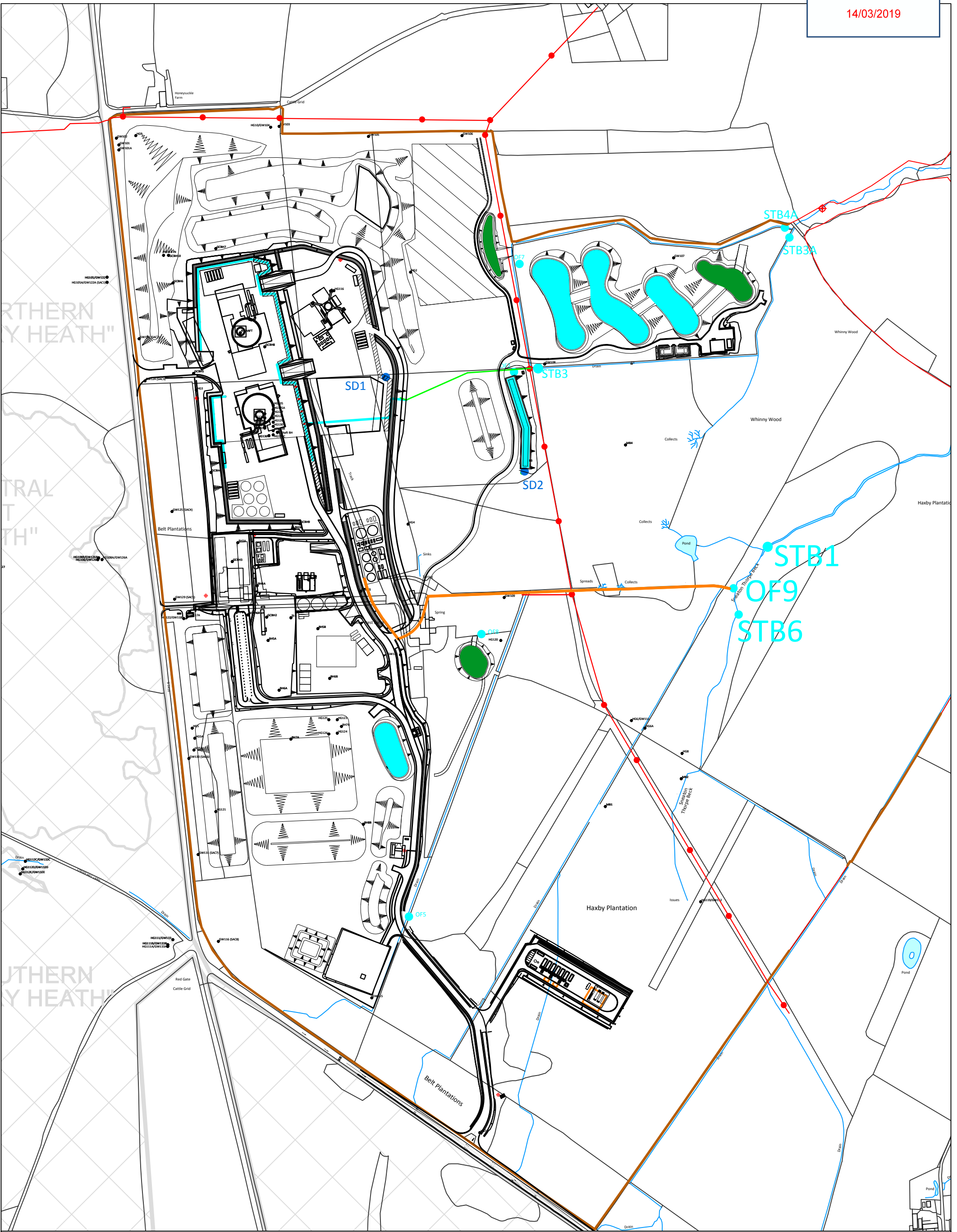
PROCEDURE FOR ADDRESSING TRIGGER VALUE BREACH FOR SURFACE WATER QUALITY

PROCEDURE FOR ADDRESSING TRIGGER VALUE BREACH FOR SURFACE WATER QUALITY

Procedure	Responsibility	Control Trigger Value Breach
		Surface Water Quality
Inspection	Environment Manager	<p>A review will be undertaken of the NDWWTP operations, plant maintenance records and construction water treatment prior to discharge of the construction waters to Sneaton Thorpe Beck, up to and during the period of breach.</p> <p>The visual inspection of the ongoing works will include inspection of the NDWWTP, oil separators for evidence of hydrocarbon breaches, inspection of filters, coagulant, flocculant and pH correction, tanks, flow meters, pipes work for breaches and outfall for evidence of cloudy discharges and to provide a record of the turbidity value recorded.</p>
Consultation with Project Manager and Planning Remedial Actions	Environment Manager/ Project Manager	Evaluate the findings of the plant maintenance record review and review of the monitoring and visual observations to determine the cause of the physical or chemical change in surface water conditions and design the appropriate course of remedial action, if required.
Implementing Remedial Actions	Project Manager/ Environmental Manager/ Environment Manager	<p>Maintenance clearance of oil separators.</p> <p>Maintenance of all filters.</p> <p>Maintenance of silt management and pH augmentation.</p> <p>Maintenance to the NDWWTP.</p> <p>Changes to the treatment methodology for the construction waters generated from the excavation works.</p> <p>Use absorbent spill pads and booms where necessary</p> <p>Changes to working practices (CEMP).</p>
Reporting	Environment Manager	Report to include details of breach, inspection, and remedial actions
Timescale		One day to identify the cause, design and implement remedial actions required.

APPENDIX 2

DRAWINGS



NOTES / KEY	DRAWING TITLE		CLIENT	
	PHASE 9 SUPPLEMENTARY SURFACE WATER MONITORING LOCATIONS		SIRIUS MINERALS PLC	
PROJECT TITLE	PROJECT NUMBER		STATUS	
	YORK POTASH PROJECT		FINAL	
DRAWN BY		DATE		DRG. No.
CM		January 2019		
SCALE		1:4,000@A3/1:2,000@A1		1433DevOD388

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