TELLUS

LONG-TERM SAFETY AND SUSTAINABILITY

SANDY RIDGE Compliance Report No. 2 EPBC 2015/7478

Prepared for Australian Government Department of Agriculture, Water and Environment

[28/09/2021

SANDY RIDGE
Compliance Report No. 2
EPBC 2015/7478

Prepared for

Australian Government
Department of Agriculture, Water and Environment

Tellus Holdings Ltd

September 2021

Prepared by

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Tellus is certified to AS/NZS ISO 9001, AS/NZS ISO 14001 and AS/NZS 45001.

QUALITY INFORMATION

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Reviewed by:	Julie Mahony – Environment Manager Sandy Ridge
	Richard Phillips – General Manager Approvals & External Affairs
Approved by:	Michael Ingram – Chief Operating Officer

REVISION HISTORY

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ABBREVIATIONS

Cth	Commonwealth
DAWE	Department of Agriculture, Water and the Environment
DoEE	Department of the Environment and Energy *now DAWE*
DGMMP	Deep Groundwater Monitoring and Management Plan
DWER	Department of Water and Environmental Regulation
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
EPBC 2015/7478	EPBC Approval dated 7 January 2019
EP Act	*Environmental Protection Act 1986*
GMB	Groundwater Monitoring Bore
GME	Groundwater Monitoring Event
IBC	Intermediate Bulk Container
km	kilometres
LOR	Limit of Reporting
LMMP	Leachate Monitoring and Management Plan
LLW	Low-Level Radioactive Waste
mbgl	Metres below ground level
Mining Act	*Mining Act 1978*
MS 1078	Ministerial Statement 1078
NEPM	National Environment Protection Measure
NORM	Naturally Occurring Radioactive Material
RS Act	*Radiation Safety Act 1975*
Tellus	Tellus Holdings Limited
the Company	Tellus Holdings Limited
the Department	Department of Agriculture, Water and the Environment
the Facility	The Sandy Ridge Facility
tpa	tonnes per annum
WA	Western Australia

DECLARATION OF ACCURACY

Project Name	Sandy Ridge Facility
Approval Holder	Tellus Holdings Ltd
EPBC Reference	2015/7478
Approved Action	Construct and operate an open-cut kaolin clay mine, arid near surface geological waste repository with the mine voids, and associated infrastructure for the storage, treatment, recovery and permanent isolation (disposal) of hazardous and intractable waste (including low level radioactive wastes), approximately 75 km north-east of Koolyanobbing in the Shire of Coolgardie, Western Australia [As described in EPBC referral 2015/7478 subject to the variations of the action accepted by the Minister under section 156B on Friday, 22 December 2017 and Friday, 9 November 2018].
Reporting Period	7 July 2020 to 6 July 2021

Declaration of Accuracy

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signature of Authorised Reporting Officer	
Name of Authorised Reporting Officer	Michael Ingram
Position of Authorised Reporting Officer	Chief Operating Officer
Organisation Name	Tellus Holdings Ltd
Organisation ACN	138 119 829
Organisation ABN	97 138 119 829

EXECUTIVE SUMMARY

In accordance with the requirements of Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) the Australian Government granted approval to Tellus Holdings Ltd (Tellus) to construct and operate an open-cut kaolin clay mine, arid near-surface geological waste repository within the mine voids, and associated infrastructure on 7 January 2019. The approval (Ref: EPBC 2015/7478) allows for the treatment, recovery and permanent isolation (disposal) of hazardous and intractable wastes (including low level radioactive wastes). The Sandy Ridge Facility (the Facility) is located approximately 75 kilometres north-east of Koolyanobbing in the Shire of Coolgardie, Western Australia.

This report has been prepared in accordance with Part B, Condition 9 of EPBC 2015/7478 that requires a Compliance Report to be prepared for each 12-month period following the date of commencement of the action, or as otherwise agreed to in writing by the Minister. This Compliance Report has been prepared in accordance with the requirements of the *Annual Compliance Report Guidelines* (Commonwealth of Australia, 2014). The reporting period for this Compliance Report has been defined as from 7 July 2020 to 6 July 2021.

The first waste was accepted into approved temporary waste storage on 6 July 2020, the last day of the previous reporting period. Permanent disposal of waste to the waste cell commenced on 23 March 2021.

Tellus's overall compliance status with EPBC 2015/7478 for the reporting period is summarised in Table ES-1.

Table ES-1 – Overall compliance status with EPBC 2015/7478

Number of Compliant Conditions	Number of Non-compliant Conditions	Number of Not Applicable Conditions
19	1	7

Tellus identified one condition of EPBC 2015/7478 that was potentially not fully met during the reporting period. The potential non-compliance was associated with the requirements of Part A, Condition 2.3, which specifies that '*To be capable of detecting any potential contamination of groundwater, the deep groundwater monitoring and management plan must include parameters collected during at least 12 months of baseline monitoring of groundwater and soil quality undertaken prior to* ***commencing waste receival.***' Tellus' baseline groundwater sampling comprised opportunistic sampling of kaolin bores in February 2019, February 2020 and April 2020. This was followed by 12 fortnightly sampling events that included the deep bore (which was installed in April 2020), until September 2020. Whilst 12 monitoring events of the deep bore were prior to waste disposal in Cell 1, inconsistency between the approved DGMMP and condition 3 could be construed as meaning that condition 3 was not fully met.

A summary of the status of all conditions of EPBC 2015/7478 is outlined within the Compliance Assessment Audit Table (Table A-1) presented in Appendix A.

1 INTRODUCTION

This Compliance Report has been prepared to document compliance with the Australian Government's Department of Agriculture, Water and the Environment (DAWE or the Department) approval EPBC 2015/7478 issued in accordance with Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The approval allows Tellus Holdings Ltd (Tellus or the Company) to construct and operate a dual open cut kaolin clay mine and arid near-surface geological waste repository known as the Sandy Ridge Facility (the Facility).

The Facility is licenced to accept Class IV and Class V waste and is located approximately 75 kilometres (km) northeast of Koolyanobbing, Western Australia (WA).

1.1 Background

In May 2015, Tellus submitted a referral to DAWE and the WA government to construct and operate an open-cut kaolin (clay) mine and complementary near-surface geological waste repository, accepting Class IV (Secure Landfill) and Class V (Intractable Landfill) waste, including waste from interstate, Australia's Exclusive Economic Zone.

The Facility was granted WA government Ministerial Approval on 26 June 2018 (Ministerial Statement 1078).

Tellus has approval to mine kaolin under the *Mining Act 1978* (Mining Act) and store and dispose of hazardous and intractable chemical and low-level radioactive waste materials under the *Environmental Protection Act 1986* (EP Act). In October 2019, the Facility was granted a site Registration for the temporary storage of radioactive substances in the form of Naturally Occurring Radioactive Material (NORM) under the WA *Radiation Safety Act 1975* (RS Act). The Registration was amended in March 2021 to include temporary storage of Disused Sealed Radioactive Sources (DSRS) up to and including Low Level Radioactive Waste (LLW). Tellus is currently seeking an amendment to the site Registration for the permanent isolation of LLW under the RS Act.

Up to 290,000 tonnes per annum (tpa) of kaolin clay will be mined and the mining voids will be used for the permanent isolation of wastes, including hazardous and intractable wastes, and LLW. The Facility will receive up to 100,000 tpa of Class IV and Class V waste for approximately 25 years. The Facility consists of:

- Mine infrastructure, including stockpile area, storage building, laboratory, mining offices, laydown yard, stormwater storage tanks (4), brine pond and settlement pond.
- Waste infrastructure including an inflatable dome waste cell cover, temporary waste storage areas (East Yard, PFAS contaminated waste storage area, low level radiation waste warehouse/ liquid waste unloading area, low level radiation waste, liquid waste and sludge storage yard), temporary waste storage area stormwater drains and retention pond, waste inspection area, waste immobilisation plant, workshop and laydown yard, flammable goods store, radiation scanner and waste laboratory.
- Other infrastructure including an accommodation camp, access roads, water pipelines, wastewater treatment plant, flood levee, and a putrescible landfill. The putrescible landfill services the accommodation camp and office. Only wastes generated at the Facility will be disposed in this landfill.

A Regional Location plan and a Site Plan are presented as **Figure 1-1** and **Figure 1-2** at the end of this Section.

1.2 Purpose and scope

This Compliance Report is submitted in accordance with the requirements set out in Part B, Condition 9 of EPBC 2015/7478, which requires the following:

Condition 9 – Annual compliance reporting

The approval holder must prepare a compliance report for each 12 month period following the date of commencement of the action, or as otherwise agreed to in writing by the Minister. The approval holder must:

- *a) Publish each compliance report on the website with 60 business days following the relevant 12 month period;*
- *b) Notify the Department by email that a compliance report has been published on the website within five business days of the date of publication;*
- *c) Keep all compliance reports publicly available on the website until this approval expires;*
- *d) Exclude or redact sensitive ecological data from compliance reports published on the website; and*
- *e) Where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department with 5 business days of publication.*

The reporting period for this Compliance Report has been defined as from 7 July 2020 (date of commencement of the action) to 6 July 2021 (12 months from date of commencement of the action) and is based on Tellus' assessment of compliance with the conditions of EPBC 2015/7478.

1.3 Report methodology

This Compliance Report has been prepared in accordance with the requirements of the *Annual Compliance Report Guidelines* (Commonwealth of Australia, 2014).

1.4 Retention of compliance reports

Tellus will retain Compliance Reports for the life of the approval in accordance with Part B, Condition 9-c of EPBC 2015/7478 and will continue to implement the proposal until the Minister has determined all conditions have been satisfactorily addressed.

1.5 Public availability of reports

Tellus will make this Compliance Report publicly available in accordance with Part B, Conditions 9-a and 9-c of EPBC 2015/7478.

In accordance with Part B, Condition 9-d of EPBC 2015/7478 Tellus will exclude or redact any sensitive ecological data from Compliance Reports published on the website. Where sensitive ecological data has been excluded or redacted, Tellus will, in accordance with Part B, Condition 9-e of EPBC 2015/7478 submit the full report to the Department within five business days of publication.

No sensitive ecological data has been excluded or redacted from this Compliance Report.

1.6 New environmental risks

No new environmental risks were identified during the reporting period.

1.7 Format of the report

The format of this Compliance Report is as follows:

- Authorised Reporting Officer's endorsement, including Tellus' declaration of accuracy.
- Executive Summary.
- Section 1 is an introduction and provides the scope and nature of the audit.
- Section 2 briefly describes the implementation status of the Project during the reporting period.
- Section 3 summarises the compliance issues identified and provides corrective and preventative measures to improve the environmental performance at the Facility.
- Section 4 provides the limitations of the report.
- Section 5 provides references used in this Compliance Report.

Appendix A presents the Audit Table, a tabulated review of the audit results against the requirements of EPBC 2015/7478.

This Compliance Report provides a summary of findings including details of non-compliances identified during the audit and recommended actions to improve compliance status.

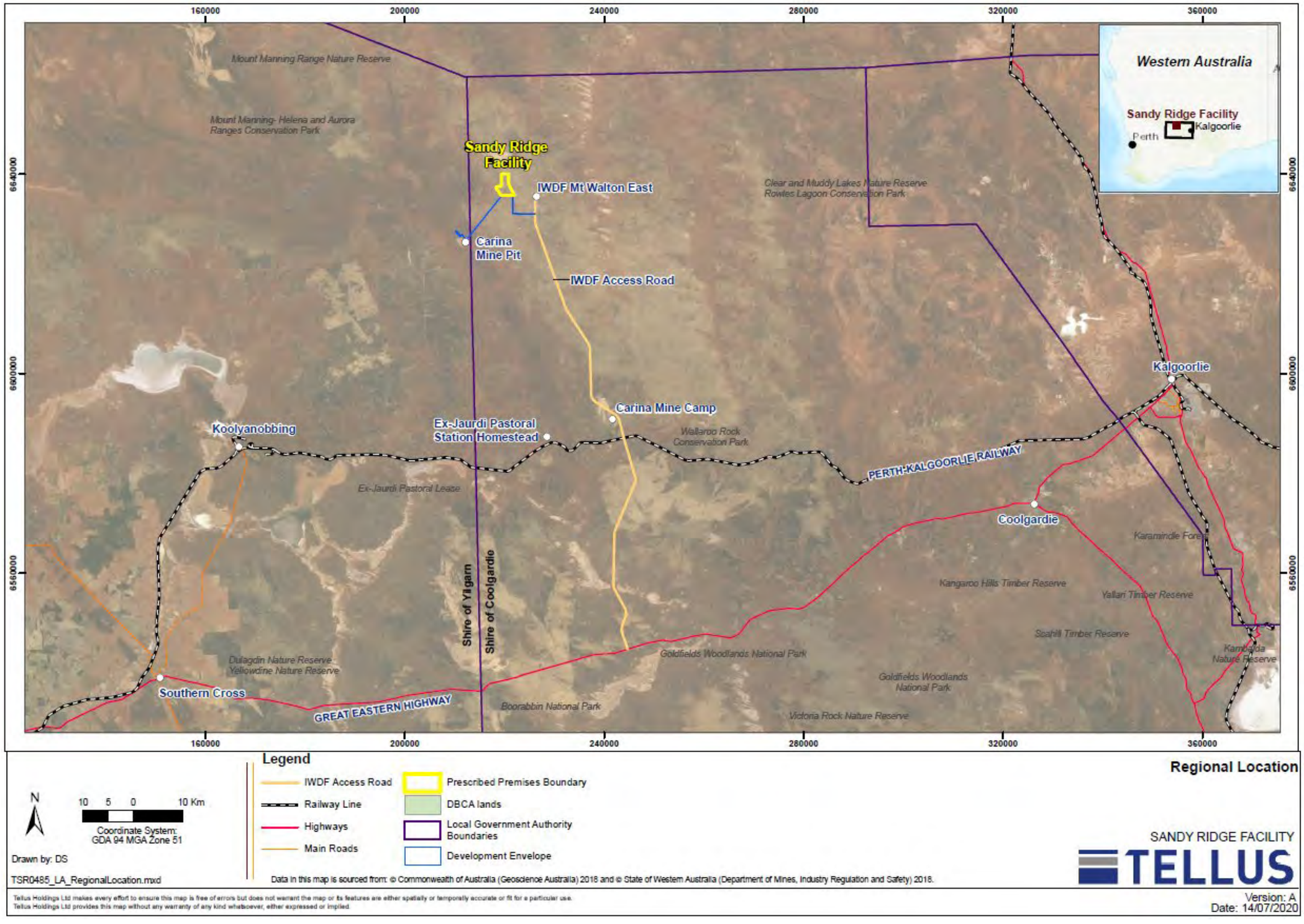

Figure 1-1 Sandy Ridge Facility Regional Location.

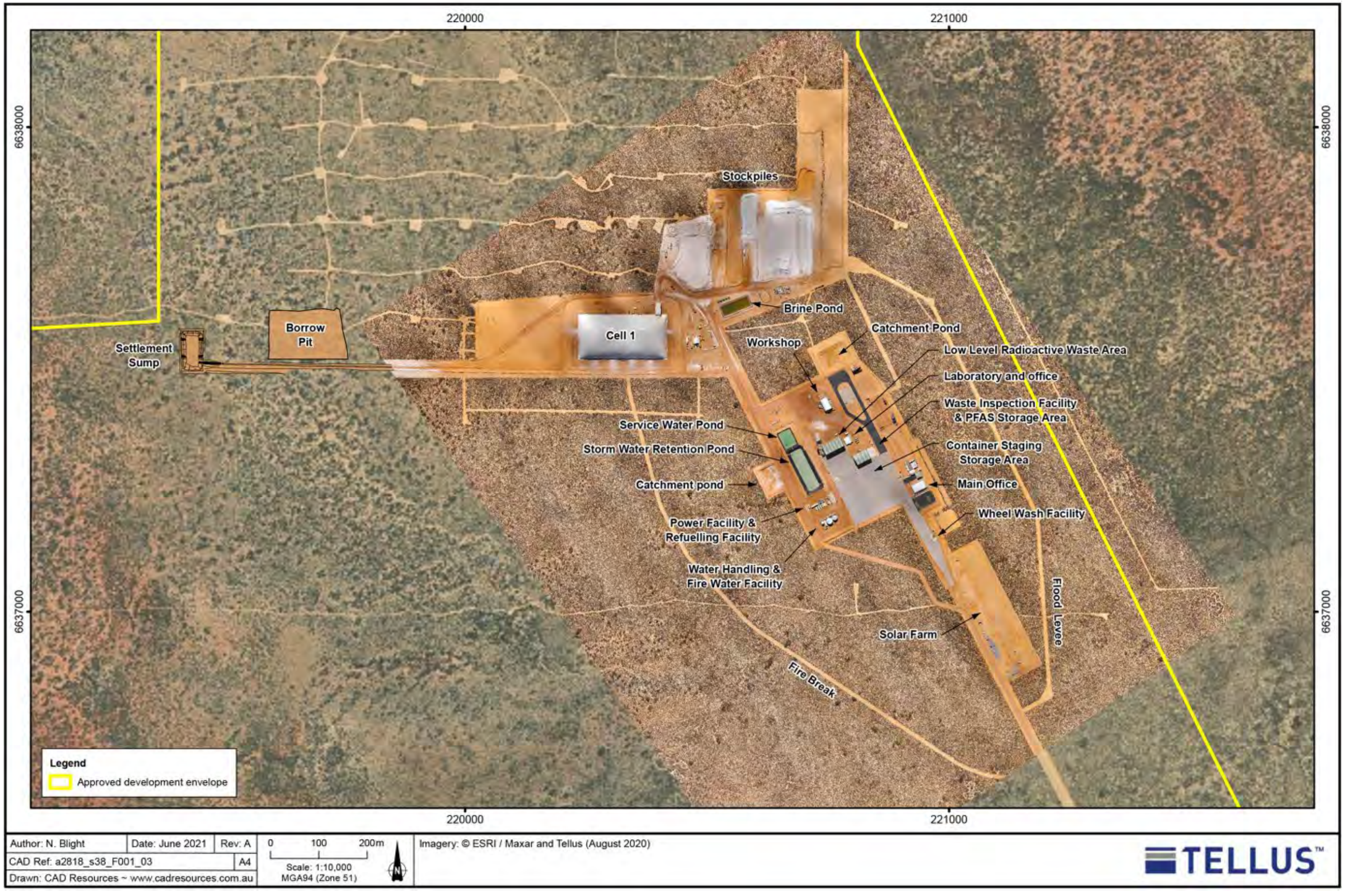

Figure 1-2 Sandy Ridge Facility Site Plan.

2 IMPLEMENTATION STATUS

Table 2-1 summarises the status of project approvals secured during the reporting period.

Table 2-1 – Project Approvals

Approvals	Issued	Finish
Ministerial Statement 1078 - Proposal to construct and operate a dual open cut kaolin clay mine and a near-surface geological waste repository accepting Class IV and Class V waste, approximately 75 kilometres north east of Koolyanobbing.	27/07/2018	
Section 45C – Attachment 1 to MS 1078 – Changes: • Amend the development envelope from 1004.2 hectares to 1061 hectares to allow for relocation of groundwater abstraction infrastructure • Installation of a 1.5 megawatt solar farm for power generation • Addition of two stormwater sumps on internal roads in the infrastructure area • Reduction in the width of internal roads to the Class II landfill and along the groundwater pipeline to Carina Iron Ore Mine • Addition of an access road adjacent to Mt Dimer Road • Addition of a flood levee • Change in orientation and size of accommodation camp	05/02/2019	
Mid-west Wheatbelt JDAP – Shire of Coolgardie – Development Application 102/17	15/04/2019	
RS Act Registration for storage of radioactive material RS 210/2018 30289	21/10/2019	
Crown Lease (and Easements) OO41345 Lot 510 on Deposited Plan 413497	27/11/2019	
Ministerial Statement 1152 (Condition 13-11 Financial Assurance Requirements)	24/09/2020	
Major approvals, permits and licences from the Australian, WA and Local Government required to temporarily store waste on-site	-	29/06/2020
Site Registration – Controlled Waste Facility No. 39106650	-	21/01/2020
W6305/2019/1 – Works Approval #2 – to authorise the construction of the temporary waste storage area.	20/12/2019	19/12/2022
W6308/2019/1 – Works Approval #3 – to authorise the construction of the main processing and treatment infrastructure of the Facility.	07/02/2020	06/02/2023
Operating Licence – Surface storage licence (Cat. 61 liquid waste and 61A solid waste activities) – L9240/2020/1	29/06/2020	28/06/2040

Registration R2498/2019/1 was granted in November 2019 for the operation of the wastewater treatment plant, and registration R2501/2020/1 was granted in February 2020 for the premises domestic putrescible landfill.

2.1 Notification of Commencement of Action

On 18 July 2019 Tellus notified by email the Department's Post Approvals Section that commencement of the action occurred on 7 July 2019. The Department acknowledged the notification in a return email, also dated 18 July 2019.

2.2 Construction

The balance of works on Stage 2B was completed during the reporting period, consisting predominantly of commissioning and performance testing of Facility infrastructure. Contract completion occurred on 09 October 2020. There is a 12 months defects liability period that ends on 09 October 2021.

2.3 Operations

The Facility consists of:

- Mine infrastructure, including stockpile area, storage building, laboratory, mining offices, laydown yard, stormwater storage tanks (4), brine pond and settlement pond.
- Waste infrastructure including an inflatable dome waste cell cover, temporary waste storage areas (East Yard, PFAS contaminated waste storage area, low level radiation waste warehouse/ liquid waste unloading area, low level radiation waste, liquid waste and sludge storage yard), temporary waste storage area stormwater drains and retention pond, waste inspection area, waste immobilisation plant workshop and laydown yard, flammable goods store, radiation scanner and waste laboratory.
- Other infrastructure including an accommodation camp, access roads, water pipelines, wastewater treatment plant, flood levee, and a putrescible landfill. The putrescible landfill services the accommodation camp and office. Only wastes generated at the Facility will be disposed in this landfill.

The Facility accepted its first waste, on 6 July 2020. A total of 6185 tonnes (normalised) was received on site during the reporting period. A breakdown by controlled waste type and radioactive waste received during the reporting period (27 June 2020 and 26 June 2021) is detailed in Table 2-2 and Table 2-3 below.

Table 2-2 – Controlled waste accepted during reporting period

Waste Type	Normalised tonnes
A100 – Waste resulting from surface treatment of metals and plastics	18
A130 – Inorganic cyanide	0.2
B100 – Acidic solutions or acids in solid form	1.0
D120 – Mercury and mercury compounds	0.8
D130 – Arsenic and arsenic compounds	678
D140 – Chromium compounds	16
D210 – Nickel compounds	84
D220 – Lead and lead compounds	1,901
E130 - Highly reactive chemicals not otherwise specified	15
G110 – Non-halogenated organic solvents	0.02
H100 – Waste from the production, formulation or use of biocides and phytopharmaceuticals	9.6
H170 – Waste wood-preserving chemicals	2,159
J100 – Waste mineral oils unfit for their intended purpose	2.2
J160 – Waste tarry residues arising from refining, distillation or pyrolytic treatment	618
J180 – Oil sludge	148
M100 – Waste substances and articles containing polychlorinated biphenyls (PCBs)	39
M270 – Per- and poly- fluoroalkyl substance (PFAS) contaminated materials, including waste PFAS containing products and contaminated containers	456
N120 – Soils contaminated with a controlled waste	39
Total tonnes received during reporting period	6,185

Table 2-3 – Radiation waste accepted during reporting period

Waste Type	Normalised tonnes
NORM soil samples	65
Exempt DSRS	0.2
Exempt LLW	0.2
Total tonnes received during reporting period	**66**

* Exempt DSRS and LLW received in same delivery, therefore total package weight divided by two.

Permanent disposal to the waste cell commenced on 23rd March 2021. During the reporting period a total of 3,731 tonnes of waste was permanently disposed of. Permanently disposed of waste during the reporting period is summarised in Table 2-4.

Table 2-4 – Permanently disposed waste during reporting period

Waste Type	Normalised tonnes
D130 – Arsenic trioxide (includes dolocrete)	294
J160 – Power Poles	1,687
D220 – Lead and lead compounds	1,013
M270 – PFAS	698
Xanthates	15
Other	23
Total tonnes disposed of during reporting period	**3,730**

Table 2-5 summarises the status of compliance with the authorised extent of the proposal (Table 2 of Schedule 1 of MS 1078).

Table 2-5 – Compliance status of key characteristics, Table 2, Schedule 1 MS 1078

Requirement		Status	Further Information
When implementing the proposal, the proponent shall not exceed the authorised extent of the proposal as defined in Table 2 of Schedule 1, unless amendments to the proposal and the authorised extent of the proposal have been approved under the EP Act.		Compliant	The authorised extent of the proposal was not exceeded during the reporting period.
Key Characteristic	**Description**		
Mine pit/waste cells	Clearing up to 202.3 hectares of native vegetation within a 1,061 hectare development envelope	Compliant	As of 26 June 2021, a total of 23.0 [1]hectares of native vegetation within the development envelope had been cleared for mine pit/waste cells.
Associated infrastructure	Clearing up to 73.75 hectares of native vegetation with a 1,061 hectare development envelope	Compliant	As of 26 June 2021, a total of 71.93 [2]hectares of native vegetation within the development envelope had been cleared for associated infrastructure.
Class IV & V waste accepted at gate	up to 100,000 tonnes per annum	Compliant	A total of 6251 tonnes (normalised) of waste was received during the reporting period.
Temporary waste storage on surface	up to 15,000 tonnes	Compliant	A total of 6251 tonnes (normalised) of waste was received during the reporting period; therefore, the temporary storage quantity was not exceeded.
Maximum temporary storage time	up to 12 months	Compliant	Waste was first received on site on 6th July 2020; therefore, the 12 month storage requirement was not exceeded during the reporting period.
Waste (including treated waste) disposed to waste cells	up to 280,000 tonnes per annum	Compliant	A total of 3731 tonnes (normalised) of waste was permanently disposed of during the reporting period.
Water use	up to 0.18 gigalitres per annum	Compliant	A total of 0.05 gigalitres was used on site during the reporting period.

2.4 Decommissioning

No decommissioning activities were conducted during the reporting period.

[1] Note: The mine pit/ waste cells clearing area is less than reported last year (35.9 ha) due to last year's CAR mistakenly including clearing for exploration and firebreaks, which are exempt, and have now been removed.
[2] Note: The associated infrastructure clearing area is less than reported last year (72.6 ha) due to last year's CAR mistakenly including exploration clearing and firebreaks, which are exempt, and have now been removed.

3 DETAILS OF FINDINGS

Table 3-1 provides a summary of the performance categories in respect to the compliance status for each requirement of EPBC 2015/7478 as defined in *Annual Compliance Report Guidelines* (Commonwealth of Australia, 2014, p.9).

Table 3-1 – Compliance status terms

Compliance Status Term	Definition
Compliant	'Compliance' is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.
Non-compliant	A designation of 'non-compliance' has been given where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.
Not Applicable	A designation of 'not applicable' has been given where the requirements of a condition or elements of a condition fall outside of the scope of the current reporting period. For example, a condition which applies to an activity that has not yet commenced.

The overall status of compliance with the Conditions of EPBC 2015/7478 for the reporting period is summarised in Table 3-2.

Requirements considered non-compliant, or not applicable, have been consolidated and are summarised in Table 3-3. The table includes a discussion of the compliance status and corrective and preventative actions for improvement where appropriate.

Tellus has provided comments next to each requirement to explain evidence relevant to each requirement. Where considered relevant, observations have been made regarding specific compliance issues.

Table 3-2 – Overall compliance assessment of EPBC 2015/7478

Number of Conditions Compliant	Number of Conditions Non-compliant	Number of Conditions Not Applicable
19	1	7

Table 3-3 – Summary of EPBC 2015/7478 non-compliant conditions

Condition No.	Condition	Compliance Status	Comments
A.2.3	To be capable of detecting any potential contamination of groundwater, the deep groundwater monitoring and management plan must include parameters collected during at least 12 months of baseline monitoring of groundwater and soil quality undertaken prior to **commencing waste receival**.	Non-compliant	Tellus conducted opportunistic groundwater sampling in February 2019, February 2020 and April 2020 whilst developing a sampling method suitable for the unique geology at Sandy Ridge. Once the sampling method was finalised, twelve further sampling events were undertaken to establish a baseline to establish trigger and threshold criteria in line with the objectives of the Deep Groundwater Monitoring and Management Plan. However, these events did not occur during 'at least 12 months' prior to commencing waste receival. The 12 sampling events were undertaken between April and September 2020. The subsequent Groundwater Quality Trigger and Threshold Criteria report (EMM, 2021 [06]), based on this sampling was issued in March 2021, prior to in-ground disposal commencing. Therefore, Tellus considers that this condition may be considered as not fully met, however the objectives of establishing baseline water quality has been met.

3.1 Environmental management plans

Table 3-4 summarises the management plans required under EPBC 2015/7478 that were submitted to the responsible Minister and, their approval status during the reporting period.

Table 3-4 – Submitted and approved management plans

Condition No.	Management Plan	Date Prepared / Revised	Approval Date
A.2.1	Deep Groundwater Monitoring and Management Plan, V1	15 May 2020	29 May 2020
A.1	Leachate Monitoring and Management Plan	7 May 2020	14 May 2020

The Leachate Monitoring and Management Plan was approved by the Chief Executive Officer of The Department of Water and Environmental Regulation as required by Conditions 9-2 and 9-3 of Ministerial Statement 1078, under the WA EP Act.

Implementation of the above referenced plans are discussed in Appendix A.

4 LIMITATIONS OF THIS REPORT

This report has been prepared by Tellus based on generally accepted practices and standards and information (including site conditions) available/present when it was prepared (September 2021).

No other warranty, expressed or implied, is made as to the professional advice included in this Report. This report was prepared in accordance with the purpose outlined in EPBC 2015/7478, dated 7 January 2019. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. Where this report indicates that information has been provided to Tellus by third parties, Tellus has made no independent verification of this information except as expressly stated in the report. Tellus assumes no liability for any inaccuracies in or omissions to that information.

This Report should be read in full and does not give legal advice. Except as required by law, no third party may use or rely on this report unless otherwise agreed by Tellus in writing. To the extent permitted by law, Tellus expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report.

5 REFERENCES

5.1 Supporting, verifying information, documentation

Name	Document Type
[01] Tellus, 2021. Compliance Assessment Report No. 3 2020-2021 Ministerial Statement 1078	Report
[02] Tellus, 2021. Sandy Ridge – Biannual Groundwater Monitoring Event 1. Summary Letter Report, 14 July 2021.	Report
[03] Tellus, Leachate Monitoring and Management Plan, Version E3, 7 May 2020, Ref: HS00-1760150200-49173.	Management Plan
[04] Tellus, 2020, Deep Groundwater Monitoring and Management Plan, V0, HS00-1760150200-49244, 15 May 2020.	Management Plan
[05] DAWE, Approval Letter, 2020, EPBC 2015/7478: Sandy Ridge Project – Deep Groundwater Monitoring and Management Plan, 29 May 2020.	Letter
[06] EMM, 2021. Groundwater Quality Trigger and Threshold Criteria – Sandy Ridge Facility. Report # P200582 RP1 March 2021	Report
[07] Landloch, 2020. Sandy Ridge Project: Baseline soil audit for the facility, Mt. Walton access road and Sandy Ridge Access Rd. October 2020	Report
[08] DWER Environmental Licence L9240/2020/1 (www.dwer.gov.au)	Licence
[09] DWER Works Approval W6243/2019/1 (www.dwer.gov.au).	Approval
[10] DWER, Letter, 2020, Sandy Ridge Facility Ministerial Statement 1078 Leachate Monitoring and Management Plan Approved, 14 May 2020, Ref: DWERDT280973; DWERT463.	Approval
[11] Tellus 2021. Surface Water Control Operational Procedure SR-08.511, February 2021	Procedure
[12] Tellus, Email, Tellus to DAWE, 2019, EPBC 2015/7478 Sandy Ridge Facility - commencement notification, 18 July 2019 @12:27pm.	Email
[13] DAWE, Email, DAWE to Tellus, 2019, EPBC 2015/7478 Sandy Ridge Facility - commencement notification, 18 July 2019 @2:31pm.	Email
[14] Letter, DAWE, 2019, Commencement of the Action – Sandy Ridge Project, WA (EPBC 2015/7478), Ref: 2015/7478, 20 August 2019.	Letter
[15] Tellus, 2019. Sandy Ridge Facility Compliance Report No.1 2019/2020.	Report

5.2 External references

A Commonwealth of Australia. 2014. Annual Compliance Report Guidelines.

[3] Version E being the first approved version of this plan (i.e. Version 0).

Appendix A - EPBC 2015/7478 Audit Table

- **This Audit Table is a summary of the requirements applying to this Proposal**. Refer to the Approval issued for the proposal under Part 9 of the EPBC Act for details/precise wording of audit elements.

EPBC 2015/7478				
Condition No.	**Condition**	**Compliance Status**	**Evidence[1]**	**Comments**
Part A – Conditions Specific to the Action				
A.1	To manage the impacts of the action on the **environment**, the **approval holder** must comply with conditions 1 and 9 attached to the **WA approval** to the extent those conditions apply to the taking of the action specified in this approval.	Compliant	[01] Tellus, 2021. Compliance Assessment Report No. 3 2020-2021 Ministerial Statement 1078 [02] Tellus, 2021. Sandy Ridge – Biannual Groundwater Monitoring Event 1. Summary Letter Report, 14 July 2021. [03] Tellus, Leachate Monitoring and Management Plan, Version E[2], 7 May 2020, Ref: HS00-1760150200-49173. [04] Tellus, 2020, Deep Groundwater Monitoring and Management Plan, V0, HS00-1760150200-49244, 15 May 2020.	Detailed findings regarding compliance with Conditions 1 and 9 of MS 1078 for the 2020-2021 reporting period are provided in the 2020-2021 CAR [01]. <u>Condition 1 of MS 1078 – Compliant</u> The extent of the proposal, as defined in Table 2 of Schedule 1 has not been exceeded (see Table 2-5). <u>Condition 9 of MS 1078 – Compliant</u> Requirements associated with Condition 9 – Terrestrial Environmental Quality are considered to have been met. • The environmental objective, to ensure that impacts to soil quality are minimised was considered to have been met based on no detected impacts [02]. • The Leachate Monitoring and Management Plan (LMMP) [03] was established and approved by DWER. • The Deep Groundwater Monitoring and Management Plan (DGMMP) [04] was established and approved by DAWE. • The first biannual groundwater monitoring event indicated no detected impacts from waste disposal activities [02].
A.2.1	To enable the early detection of any leachate and to protect the **environment** from impacts from leachate to deep groundwater, the **approval holder** must submit a deep groundwater monitoring and management plan. The deep groundwater monitoring and management plan must commit the **approval holder** to undertake monitoring and management of potential impacts to the groundwater within the weathered granite and granite hard rock (bedrock) as specified below. The **approval holder** must not **commence waste receival** unless the **Minister** has approved the deep groundwater monitoring and management plan in writing. If the **Minister** approves the deep groundwater monitoring and management plan then the approved deep groundwater monitoring and management plan must be implemented.	Compliant	[02] [04] [05] DAWE, Approval Letter, 2020, EPBC 2015/7478: Sandy Ridge Project – Deep Groundwater Monitoring and Management Plan, 29 May 2020.	Tellus submitted the Deep Groundwater Monitoring and Management Plan (DGMMP), dated 15 May 2020 [06] to the Minister on 15 May 2020. DAWE issued a letter to Tellus dated 29 May 2020 [07] that approved the DGMMP [dated 15 May 2020 (Rev0)] in accordance with Condition 2(1) of Part A of EPBC 2015/7478. **Implementation** The following monitoring requirement for the deep groundwater bore (SRMB167) were included in the DGMMP (Table 2-1). • Twelve sampling events were undertaken to establish a baseline to establish trigger and threshold criteria. At the time of preparing this report the LMMP was being updated to reflect the results of the 12 GMEs and updated trigger and threshold levels. • Biannual sampling against the parameters defined in Appendix H1 and H2 of the LMMP has been undertaken. <u>Ongoing monitoring</u> The Summary Groundwater Monitoring Event 1 (Summary Letter Report) indicates the deep groundwater bore SRMB167 was monitored in April 2021 one month after waste cells had become active. Due to water levels and distances of some monitoring wells from current waste cells only five shallow groundwater bores met the requirements to be sampled in April 2021. The results indicated the following • Multiple metals and nutrients were detected in all samples. • Metals and nutrients are present naturally in the environment. • Metals and Nutrients have been detected in past groundwater monitoring events at similar concentrations. Analysis of the data also indicated the presence of Polyfluoroalkyl Substances (PFAS) at levels as low as 0.0002 µg/L it is likely that these levels of PFAS were caused by the development of the wells and sampling and are not indicative of leaching from the waste cells. Tellus installed and monitored four groundwater bores around the perimeters of Pit 1/Cell 1 for the presence of water.
A.2.2	The deep groundwater monitoring and management plan must specify:	-	-	-
A.2.2.a	a) monitoring procedures and protocols, including monitoring location points and frequency of monitoring (minimum every six (6) months);	Compliant	[04] / [05]	Section 2 (Monitoring) of the DGMMP addressed monitoring conducted prior to and during the reporting period and planned future monitoring. Appendix G – Groundwater Sampling Procedure, addressed monitoring procedure and protocols. The frequency of monitoring was addressed on Section 2.3.3 [06, p.30 and p.33].

[1] Refer to Section 5.1 Supporting, verifying information, documentation.

[2] Version E being the first approved version of this plan (i.e. Version 0).

EPBC 2015/7478				
Condition No.	**Condition**	**Compliance Status**	**Evidence[1]**	**Comments**
A.2.2.b	b) mitigation and management measures;	Compliant	[04] / [05]	Table 2-1 [06, p.12 and P.13] detailed mitigation actions for the DGMMP. Section 4.8.3 (Facility Manager) of the DGMMP identified that the Facility Manager is responsible for ensuring environmental mitigation/management requirements are implemented.
A.2.2.c	c) an adaptive management framework, including early warning triggers, trigger criteria, monitoring design and methodologies, and trigger management actions;	Compliant	[04] / [05]	Section 2.3.3 [06, p.28] noted that Tellus will complete adaptive sampling and analysis based on a prioritisation of analytical suites in the event sufficient groundwater cannot be extracted for chemical and radionuclide analysis. Table 2-4 [06, p.29] presented groundwater monitoring scenarios and adaptive sampling and analysis. An adaptive management framework was included as Section 3 of the DGMMP that referred to a two-tiered adaptive leachate management and monitoring framework. Figure 3-1 [06, p.47] provided an overview of the adaptive groundwater monitoring and trigger actions.
A.2.2.d	d) **incident** reporting;	Compliant	[04] / [05]	Incident reporting was addressed in Section 3.2 [06, p.40] of the DGMMP which noted that any incidents would be managed in accordance with the requirements of its certified management system. The Sandy Ridge Facility has implemented the INX InControl system for recording and managing all incidents. At the time of the audit Tellus was certified to AS/NZS ISO 45001:2018 and AS/NZS ISO 14001:2016 and the Sandy Ridge Facility was in the process of being incorporated into the certification scope. Clause 10.2 requires the establishment, implementation and maintain a process(s), including reporting, investigating and taking action to determine and manage incidents and non-conformities.
A.2.2.e	e) review periods; and	Compliant	[04] / [05]	Review periods were specified in Section 4.3 [06, p.53] of the DGMMP. The first review of the DGMMP is scheduled for September 2020 following the generation of site specific radiological and chemical groundwater screening levels. The DGMMP stated that "*At a minimum, this DGMMP will be revised to address deep groundwater monitoring and management aspects no less than every three years*" (p.53).
A.2.2.f	f) implementation reporting and auditing by a **suitably qualified person**.	Compliant	[04] / [05]	Reporting and auditing of the DGMMP by a suitably qualified person is addressed in Section 4.4 [p.53] of the DGMMP [06]. It is proposed that the audits are undertaken every three years.
A.2.3	To be capable of detecting any potential contamination of groundwater, the deep groundwater monitoring and management plan must include parameters collected during at least 12 months of baseline monitoring of groundwater and soil quality undertaken prior to **commencing waste receival**.	Non-compliant	[02] / [04] [06] EMM, 2021. Groundwater Quality Trigger and Threshold Criteria – Sandy Ridge Facility. Report # P200582 RP1 March 2021 [07] Landloch, 2020. Sandy Ridge Project: Baseline soil audit for the facility, Mt. Walton access road and Sandy Ridge Access Rd. October 2020	The DGMMP includes the requirement for 12 sampling events to be undertaken in order to establish a trigger and threshold criteria; however, the requirement for them to occur over at least a 12 month period prior to waste receival was not defined in the approved plan. Twelve deep groundwater sampling events were undertaken to establish a baseline to establish trigger and threshold criteria; however, these events did not occur during 'at least 12 months' prior to commencing waste receival. The 12 deep groundwater sampling events were undertaken between April and September 2020 **prior to waste disposal** in Cell 1, consistent with the approved plan. The subsequent Groundwater Quality Trigger and Threshold Criteria report (EMM, 2021 [06], based on this sampling was issued in March 2021, prior to in-ground disposal commencing. Therefore, Tellus considers that this condition may be considered as not fully met, however the objectives of establishing baseline water quality has been met. At the time of preparing this report the DGMP was being updated to reflect the results of the trigger and threshold levels that had been determined in the EMM report [06]. The report was comprehensive and specified that data validation indicated that the baseline water quality data were of sufficient quality for interpretive use. Statistical and graphical methods were used to characterise groundwater composition. Groundwater quality did not differ between individual monitoring wells and one set of trigger and threshold criteria were developed for all monitoring wells installed in the kaolinite. A separate set of trigger and threshold criteria were developed for the well screened in the bedrock following the same methodology. The statistical software ProUCL, which was developed by the US EPA to statistically evaluate environmental data, was used to develop trigger and for some analytes threshold criteria. A baseline soil audit was undertaken by Landloch in two campaigns (April 2019 and January 2020). The audit summary stated "Surface soils of the Sandy Ridge Project have been audited for a range of testing suites, including Inorganics, Heavy Metals, Asbestos, PCBs, PFAS, and Radionuclides. The audit results indicate that no significant environmental concerns currently exist for the soils that have been sampled."

EPBC 2015/7478				
Condition No.	**Condition**	**Compliance Status**	**Evidence[1]**	**Comments**
A.3	To exclude potential floodwaters from the site and to prevent the release of potentially contaminated floodwaters to the environment, the **approval holder** must ensure that any surface water that enters or leaves the action area cannot spread contaminants out of the action area. To meet this objective the **approval holder** must ensure that monitoring of the action's impacts is capable of detecting any contaminants before they can be transported out of the action area.	Compliant	[08] DWER Environmental Licence L9240/2020/1 (www.dwer.gov.au). [09] DWER Works Approval W6243/2019/1 (www.dwer.gov.au). [10] DWER Works Approval W6308/2019/1 (www.dwer.gov.au). [03] [10] DWER, Letter, 2020, Sandy Ridge Facility Ministerial Statement 1078 Leachate Monitoring and Management Plan Approved, 14 May 2020, Ref: DWERDT280973; DWERT463. [11] Tellus 2021. Surface Water Control Operational Procedure SR-08.511, February 2021	<u>Physical Infrastructure</u> Tellus has constructed the Facility to meet the requirements of Table 1 (p.10) of Licence L9240/2020/1 [08] issued by DWER on 29 June 2020 that requires the following concerning surface water management: • **Temporary Waste Storage Area** - "*Sloped to allow surface water within the Temporary Waste Storage Area to drain to the Stormwater Retention Pond*". • **Temporary Waste Storage Area Stormwater Drains** – "*(a) Stormwater diversion drain located on the eastern side of the temporary waste storage area capable of diverting surface storm water away from the Temporary Waste Storage Area; and (b) Stormwater drain located within the temporary waste storage area capable of diverting surface storm water within the Temporary Waste Storage Area to the Stormwater Retention Pond*". • **Temporary Waste Storage Area Earth Bund** – "*To contain any liquid or solid waste that may discharge from waste containers within the Temporary Waste Storage Area*" • **Stormwater Retention Pond** – "*Total capacity of 3,926 m3, capable of capturing a 1 in 100 year 72-hour storm event from the Temporary Waste Storage Area*". To mitigate potential floodwaters entering the Facility a flood levee measuring approximately 1 km by 11 m in width has been constructed to the east of the infrastructure area. Figure 2 (p.6) of Works Approval W6243/2019/1 [09] issued on 20 April 2019 by DWER specifies the civil earthworks design for drainage of the infrastructure area. Column 2, Table 2 (pp.9-17) of Works Approval W6308/2019/1 [10] issued on 7 February 2020 and amended 27 March 2020 by DWER states the design and construction requirements for the specific areas of the Facility including, but not limited to the waste storage – east yard, PFAS contaminated waste storage area and the low-level radiation waste liquid waste and sludge storage yard. External areas are designed to drain towards blind sumps or two stormwater retention ponds. Covered waste storage areas are designed to drain to internal blind concrete sumps which will be pumped out into 1,000 L Intermediate Bulk Containers (IBCs) if full. Issuing of the DWER Environmental Licence L9240/2020/1 indicates that DWER were satisfied that the Works Approvals were compliant. <u>Monitoring</u> Groundwater monitoring was undertaken in accordance with the Leachate Monitoring and Management Plan (LMMP) [03], which was approved by DWER on 14 May 2020 [10]. At the time of the audit the LMMP was being updated to reflect the proposed trigger and threshold levels. Monitoring of stormwater ponds and sumps is undertaken to ensure their integrity is maintained (scheduled inspections in INX In Control system). A summary of surface water catchments and storages, including maintenance requirements is defined in the Surface Water Control procedure (SR-08.511) [11]. The Operations EMP specifies that water from said ponds and sumps can only be reused in the WIP or within the Cell, hence no discharge to the environment. The exception to this is that if water is verified by a NATA accredited lab as being contaminant-free, then it could be re-used onsite.
A.4	To ensure a nationally consistent approach to the environmental regulation of **PFAS**, the **approval holder** must implement the **PFAS National Environmental Management Plan**.	Compliant	-	During the reporting period PFAS contaminated wastes were received from several sources. A detailed audit against the PFAS NEMP was not undertaken, however, a review against its key applicable requirements concluded that Tellus had broadly established and implemented a waste management system at Sandy Ridge that complied with the objectives of NEMP. Key findings include; the Sandy Ridge Waste Management System evaluates the acceptability of waste coming to site following an approved Waste Acceptance procedure, which requires the waste to be characterised and assessed against numerous different criteria. This process is in alignment with the PFAS NEPM. The WAP checklist also asks the questions as to whether future recovery and recycling of the waste is intended. It is also acknowledged in the PFAS NEPM that the range of treatment facilities and technology options commercially available to remove and/or destroy PFAS compounds is limited, and that on-site encapsulation is a preferred option. It was noted that the PFAS NEPM (section 11.1) specifies '*PFAS-contaminated materials, including waste PFAS-containing products, are considered to be Dangerous Goods Class 9.*'; however, in sighted waste management records, including the incoming waste vehicle checklist all PFAS containing wastes have been classified as non-DG. Interviewed Tellus personnel stated that they believed they were compliant because in WA the NEMP contradicts WA legislation, which references the ADG Code. The ADG Code (section 3.3.3 Australian Special Provisions, # AU01) specifies 'Environmentally Hazardous Substances meeting descriptions of UN3077 or UN3082 are not subject to this Code when transported by road or rail in: a) Packaging's that do not incorporate a receptacle exceeding 500kg (L); or b) IBCs.

EPBC 2015/7478				
Condition No.	**Condition**	**Compliance Status**	**Evidence[1]**	**Comments**
A.5	The **approval holder** must ensure waste emplacement is undertaken as described in the action description of this approval notice. The **approval holder** must not emplace waste by borehole disposal (commonly referred to as the BOSS method).	Compliant	-	All permanently disposed of waste was placed within the engineered waste cell. Emplacement of waste by borehole disposal (commonly referred to as the BOSS method) is not currently planned for operational activities.
Part B – Standard Administrative Conditions				
B.6	**Notification of the date of commencement of the action** The **approval holder** must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.	Compliant	[12] Tellus, Email, Tellus to DAWE, 2019, EPBC 2015/7478 Sandy Ridge Facility - commencement notification, 18 July 2019 @12:27pm. [13] DAWE, Email, DAWE to Tellus, 2019, EPBC 2015/7478 Sandy Ridge Facility - commencement notification, 18 July 2019 @2:31pm. [14] Letter, DAWE, 2019, Commencement of the Action – Sandy Ridge Project, WA (EPBC 2015/7478), Ref: 2015/7478, 20 August 2019.	On 18 July 2019 [11a] Tellus notified by email the Department's Post Approvals Section that commencement of the action occurred on 7 July 2019. The Department acknowledged the notification in a return email, also dated 18 July 2019 [11b]. The Department formally responded to the notification of commencement of the action in a letter dated 20 August 2019 [12], noting that the Annual Compliance Report for the period of 7 July 2019 to 6 July 2020 must be published by 3 September 2020, and submitted to the Department within five business days of publication.
B.7	**Compliance records** The **approval holder** must maintain accurate and complete **compliance records**.	Compliant	Online Health, Safety & Environmental software (www.inxsoftware.com).	Tellus has implemented an online health, safety and environment online management software program to facilitate the management of environmental obligations. The system allows for compliance records and tasks to be assigned to specific obligation conditions as well as environmental monitoring data to be managed, including, but not limited to real-time data and chains of custody. Waste management records are maintained using the company's online waste management system.
B.8	If the **Department** makes a request in writing, the **approval holder** must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.	Not Applicable	-	There have been no requests from the Department concerning electronic copies of compliance records, therefore this requirement was not triggered within the reporting period.
B.9	**Annual compliance reporting** The **approval holder** must prepare a **compliance report** for each 12-month period following the date of **commencement of the action**, or as otherwise agreed to in writing by the **Minister**. The **approval holder** must:	Compliant	-	This is the second Compliance Report to be written for EPBC 2015/7478. The first report was provided to DAWE and published to the Sandy Ridge Facility Regulatory Information page of the Tellus website.
B.9.a	a) publish each **compliance report** on the **website** within 60 **business days** following the relevant 12-month period;	Compliant	[15] Tellus, 2019. Sandy Ridge Facility Compliance Report No.1 2019/2020. Sandy Ridge Facility Regulatory Information page, Tellus website (www.tellusholdings.com).	The first Compliance Report is available on the Sandy Ridge Facility Regulatory Information page of the Tellus website. The Compliance Report for the reporting period 2020 – 2021 will be published to the Sandy Ridge Facility Regulatory Information page of the Tellus website within 60 business days following the relevant 12-month period. The reporting period ended on 6 July 2021; therefore, this ACR must be published by 28 September 2021.
B.9.b	b) notify the **Department** by email that a **compliance report** has been published on the **website** within **five business days** of the date of publication;	Compliant	[15] Sandy Ridge Facility Regulatory Information page, Tellus website (www.tellusholdings.com).	The first Compliance Report to be written for EPBC 2015/7478 was been published to the Sandy Ridge Facility Regulatory Information page of the Tellus website. The Department will be notified by email when this Compliance Report has been published on the website (within five business days of the date of publication). Evidence of the notification will be included in the Compliance Report for the reporting period 2021 – 2022.
B.9.c	c) keep all **compliance reports** publicly available on the **website** until this approval expires;	Compliant	[15] Sandy Ridge Facility Regulatory Information page, Tellus website (www.tellusholdings.com).	The first Compliance Report has been published to the Sandy Ridge Facility Regulatory Information page of the Tellus website. Compliance Reports will be publicly available on the Sandy Ridge Facility section of the Tellus website until EPBC 2015/7478 expires.

EPBC 2015/7478				
Condition No.	**Condition**	**Compliance Status**	**Evidence[1]**	**Comments**
B.9.d	d) exclude or redact **sensitive ecological data** from compliance reports published on the **website**; and	Not Applicable	[15]	The Sandy Ridge Facility Compliance Report No.1 2019/2020 does not include any sensitive data ecological data that requires redacting.
B.9.e	e) where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.	Not Applicable	[15]	The Sandy Ridge Facility Compliance Report No.1 2019/2020 did not include any sensitive data ecological data that requires redacting.
B.10	**Reporting non-compliance** The **approval holder** must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the incident or non-compliance. The notification must specify: a) the condition which is or may be in breach; and b) a short description of the incident and/or non-compliance.	Compliant		The noncompliance identified against Condition A 2.3 was identified during preparation of this report and will be notified to the Department through submission of this report. No other incident or non-compliance with the requirements of EPBC 2015/7478 occurred during the reporting period.
B.11	The **approval holder** must provide to the **Department** the details of any **incident** or non-compliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the incident or non-compliance, specifying: a) any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future; b) the potential impacts of the incident or non-compliance; and c) the method and timing of any remedial action that will be undertaken by the approval holder.	Compliant		The noncompliance identified against Condition A 2.3 was identified during preparation of this report and will be notified to the Department through submission of this report. No other incident or non-compliance with the requirements of EPBC 2015/7478 occurred during the reporting period.
B.12	**Independent audit** The **approval holder** must ensure that independent audits of compliance with the conditions are conducted as requested in writing by the **Minister**.	Not Applicable	-	There has been no request from the Minister concerning an independent audit, therefore this requirement was not triggered within the reporting period.
B.13	For each **independent audit**, the **approval holder** must: a) provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**; b) only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and c) submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.	Not Applicable	-	Not Applicable (not triggered).
B.14	The **approval holder** must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.	Not Applicable	-	Not Applicable (not triggered).
B.15	**Completion of the action** Within 30 days after the **completion of the action**, the **approval holder** must notify the **Department** in writing and provide **completion data**.	Not Applicable	-	Not Applicable (not triggered).