



ENVIRONMENTAL PROTECTION PLAN

Liard Area

C31 & K32

PREPARED:

June 23, 2020

Emergency Contacts:

24 hour 1-877-792-2990



ENVIRONMENTAL PROTECTION PLAN

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1.0 Introduction

Obsidian Energy Ltd (Obsidian) has prepared this environmental protection plan (EPP) for the abandonment and reclamation activities being undertaken at their two wellsite's located in the Fort Liard area. The plan demonstrates that Obsidian has appropriate response capabilities and measures in place to effectively address the environmental impacts of the activities planned and to meet the various regulations of the NWT Office of the R

2.0 Locations

WELL INFORMATION SUMMARY	
Well Name / Location:	C-31-6040-12330 60° 30' 0.5" 123° 36' 41.5" K-32-6010-12315 60° 1' 38.7" 123° 21' 55.8"
Project Description:	Abandonment and Reclamation
Distance to Nearest Urban Centre:	The nearest urban development is Fort Liard,
General Land Use:	The site is located in a remote forested location.
OROGO Incident Response Line	1-867-445-8551
NWT Spill Line	1-867-920-8130

Access:

Both sites are accessible via helicopter from Fort Liard. Equipment access for C-31 is by barge and road in the summer or ice road in the winter. Equipment access to K-32 is winter access from north or south of the well.

Paramount operates and maintains the road from the barge landing for approximately 29.5 km to the K-29 wellsite. Canadian Natural Resources operates the road from K-29 for 2.5km to the C-31 wellsite and beyond. Obsidian maintains agreements with Paramount and CNRL for road use.



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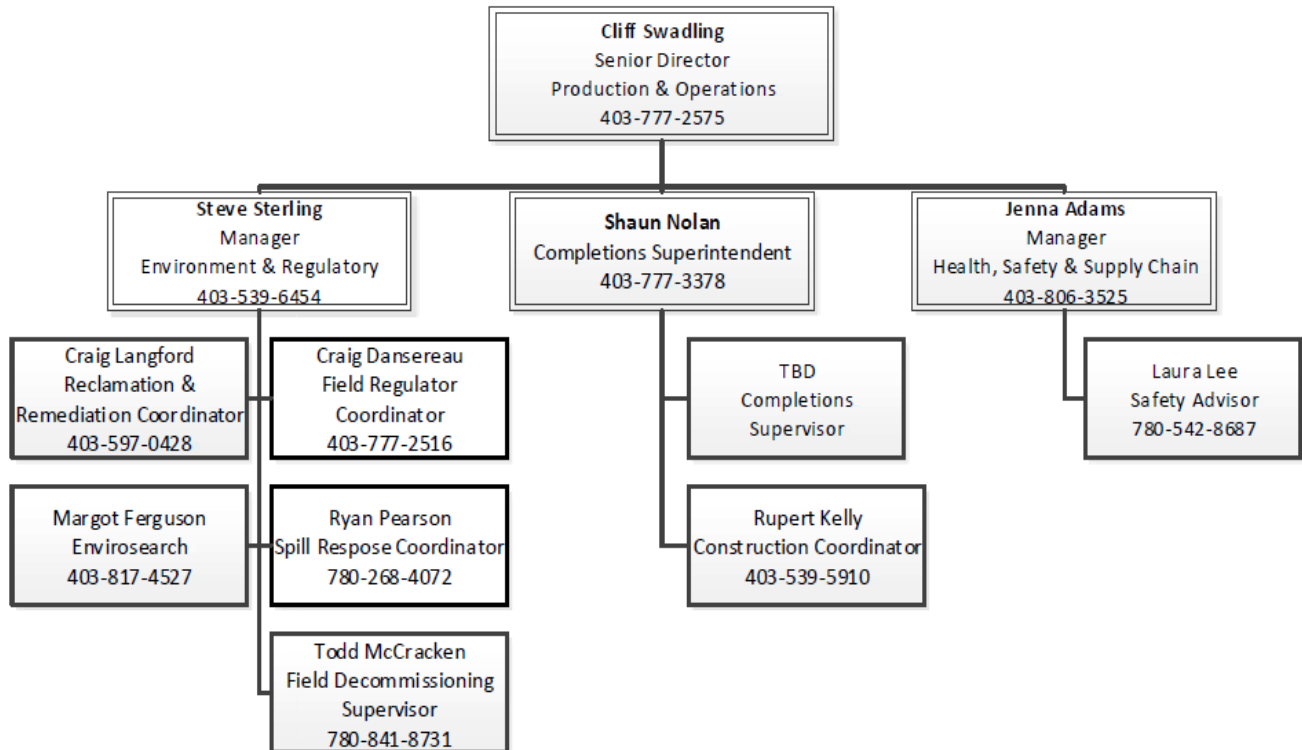
Mailing Address:

Obsidian Energy Ltd
200, 207 – 9th Avenue SW
Calgary, AB T2P 1K3

Key Contacts:

The following are key contacts for the environmental protection plan, if an emergency situation exists, the Obsidian Site Specific and Corporate ERP will be activated by the Site Supervisor. Additional emergency contacts are included in the ERP documents to avoid duplication.

TABLE 2: EPP CONTACTS AND RESPONSIBILITIES





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2.1 Purpose

The purpose of the environmental protection plan is to provide a guidance document/ reference to the environmental impact evaluations, policies, and procedures that together aid in minimizing the environmental impact of the project scope. The plan provides a basis for regulatory compliance and aims to protect human health and minimize environmental impacts while following appropriate procedures should an event or spill occur.

2.2 Project Scope

The project is to abandon and reclaim the C-31A and K-32 wells. The scope of work of the program includes:

- Well Abandonment,
- Surface Abandonment
- environmental assessment of the wellsite and remote sump/campsite
- remediation of impacts identified (if necessary) and,
- recontouring, reclamation and revegetation of the wellsite and sump/camp site.

2.3 Environmental Commitment and Policy

Obsidian Energy is committed to minimizing the environmental impacts from oil and natural gas operations, and to involving stakeholders throughout the exploration, development, production and abandonment processes. Obsidian's environmental programs encompass resource conservation, stakeholder communication, and site abandonment/reclamation.

The Company's continuing policy is to meet or exceed all provincial and federal laws, regulations and standards pertaining to the environment. Obsidian's Environmental Policy and Environmental Management Plan cover air, water, soil and waste issues associated with industry operations. The Company continues to implement its long-term liability management programs, such as well abandonment, facility abandonment, remediation, and reclamation. Under this program, Obsidian evaluates inactive wellbores and facilities to determine whether they can be economically reactivated or whether they should be abandoned and reclaimed. Obsidian's liability management programs also includes auditing of field facilities such as oil batteries, compressor stations and natural gas processing plants.

As a Company that periodically acquires producing assets, Obsidian is conscious of the need to perform due diligence related to environmental performance and regulatory compliance on any prospective acquisition

3.0 Related Documents

The Environmental Protection Plan is not a stand-alone document but rather a reference for other documentation. Table 3 provides a summary of the related documents, their purpose and relation to the EPP.



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TABLE 3: DOCUMENTS RELATED TO THE ENVIRONMENTAL PROTECTION PLAN

TITLE	AUTHOR	PURPOSE/SCOPE
CORPORATE DOCUMENTS		
Environmental Policy	Obsidian	Management commitment to environmental protection and compliance
Environmental Intranet Page	Obsidian	Provides an overarching plan associated with the company's operations. Provides operational guidelines for employees
POLICIES AND PROCEDURES		
Vendor Management – various documents	Obsidian	Outlines the approval and selection process for Vendors and Contractors to ensure that risks and liabilities are managed
Site Supervisor Competency documents	Obsidian	Obsidian has a rigorous process for the selection, training and evaluating the competency of our Site Supervisors. Competency includes the awareness and knowledge of Obsidian safety and environmental policies and procedures, and applicable legislation, guidelines and regulations
Environment Department – Information Bulletins	Obsidian	Information bulletins provide guidance for conducting environmental work
SITE SPECIFIC		
Environmental Protection Plan –	Environmental for MVLWB LUP	Outlines the environmental studies to date and the evaluation of potential impacts of the project scope including protective and mitigative measures
NWT Waste Management Plan	Obsidian	Identifies potential waste streams, potential environmental impacts, waste handling and on-site and end-point management
NWT Spill Contingency Plan	Obsidian	Provides information on hazardous material stored on-site and procedures and strategy for a response should a release occur.
Corporate ERP and Site-Specific ERP	Obsidian	Provides procedures and contacts in case of an emergency



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4.0 Accordance to Regulations

Table 4 Provides an Accordance Table that reference where documentation can be found to meet the requirements of the regulations. Details are not reproduced in this document to provide consistency and avoid duplication.

OGDPR 9 k) a description of the arrangements for monitoring compliance with the plan and for measuring performance in relation to its objectives.

The EPP will be reviewed at the start of each stage of the project (eg. abandonment, cutting and capping, environmental assessment). During this time, the EPP requirements and expectations will be communicated to the applicable parties on-site.

Daily records will include any notes applicable to the EPP. For example, daily notes include the generation and storage of any wastes. Another example would note any wildlife that were encountered.

If any contraventions of the EPP are noted, an Obsidian incident report will be completed. If controls are modified and a contravention was avoided a Near Miss form will be completed. Investigation of incidents will be handled as part of the Safety Management system.

Compliance with the waste generation, management and transportation will be monitored through the Waste Management Plan and Obsidian's waste tracking system.

Compliance with spill regulations will be monitored through spill reporting and investigation as part of the Spill Contingency Plan.

Performance of the EPP will be measured by evaluating the objectives and impacts at the end of each stage of the project. This will be conducted by reviewing the job scope, daily reports, visual inspections, review of project photographs and review of any incident reports, near misses and spill reports that are submitted.



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TABLE 4; ACCORDANCE TABLE OF REGULAOTRY COMPLIANCE TO EXISITING OBSIDIAN DOCUMENTATION

			REGULATION	JUSTIFICATION	DOCUMENT REFERENCE	
OGDPR	9	a	a summary of and references to the management system that demonstrate how it will be applied to the proposed work or activity and how the duties set out in these Regulations with regard to environmental protection will be fulfilled	Obsidian Energy is committed to protecting its personnel, property and the environment from accidents or incidents resulting from any of its operations. Obsidian Energy shall meet these obligations by providing resources and taking appropriate measures to protect and promote the health and safety of its employees and to ensure operations do not adversely affect the environment and the general public.	OBE SMART Elements NWT Waste Management Plan NWT ERP NWT EPP MVLWB LUP EPP NWT Spill Manual	
		b	summary of the studies undertaken to identify environmental hazards and to evaluate environmental risks relating to the proposed work or activity;	Studies included a Phase I environmental site assessment, traditional environmental knowledge study, well inspection program	Phase I Reports Environmental Protection Plane Well Inspection Report	
		c	description of the hazards that were identified and the results of the risk evaluation;	Evaluated the physical, biological and interacting environments	Environmental Protection Plan MVLWB LUP	
		d	summary of the measures to avoid, prevent, reduce and manage environmental risks;	Evaluated the physical, biological and interacting environments	Environmental Protection Plan MVLWB LUP	
		e	list of all structures, facilities, equipment and systems critical to environmental protection and a summary of the system in place for their inspection, testing and maintenance;	Berms in place around the site and any fuel storage areas	Environmental Protection Plan MVLWB LUP	
		f	i	description of the organizational structure for the proposed work or activity and the command structure on the installation, which clearly explains their relationship to each other	Contacts and roles are outlined in applicable documents including summarized in the EPP	Environmental Protection Plan – OROGO Safety Plan ERP
			ii	contact information and position of the person accountable for the environmental protection plan and of the person responsible for implementing it;	MVLWB EPP was developed for Obsidian by EnviroSearch Environmental OROGO EPP was developed by Obsidian Environmental Coordinator	Environmental Protection Plan – MVLWB contains contact info Environmental Protection Plan – OROGO contains contact info
		g	procedures for the selection, evaluation and use of chemical substances including process chemicals and drilling fluid ingredients;	Not applicable Abandonment requires fresh water and cement. Herbicides may be used for weed control if necessary and they will be selective to the weed in question	n/a	
		h	description of equipment and procedures for the treatment, handling and disposal of waste material;	A site-specific waste management plan was developed for the abandonment and reclamation program	NWT Waste Management Plan	
		i	description of all discharge streams and limits for any discharge into the natural environment including any waste material;	A site-specific waste management plan was developed for the abandonment and reclamation program	NWT Waste Management Plan	
		j	description of the system for monitoring compliance with the discharge limits identified in paragraph (i), including the sampling and analytical program to determine if those discharges are within the specified limits; and	Not applicable There are no planned discharges to the natural environment	n/a	
k	description of the arrangements for monitoring compliance with the plan and for measuring performance in relation to its objectives.	See Section 4 of the OROGO EPP	NWT Spill Contingency Plan NWT Waste Management Plan OROGO EPP Section 4			
COGOA	5	a	the equipment and installations that are to be used in the work or activity to be authorized are fit for the purposes for which they are to be used, the operating procedures relating to them are appropriate for those uses, and the personnel who are to be employed in connection with them are qualified and competent for their employment; and	No equipment is permanently on-site. Temporary equipment used in the program is evaluated through the Vendor Management Process	Vendor Management Program	
		b	the applicant shall ensure, so long as the work or activity that is authorized continues, that the equipment and installations continue to be fit for the purposes for which they are used, the operating procedures continue to be appropriate for those uses, and the personnel continue to be so qualified and competent	No equipment is permanently on-site. Temporary equipment used in the program is evaluated through the Vendor Management Process	Vendor Management Program	
	5	11	Awareness, Competence and Training	Obsidian has a thorough Site Supervisor selection and training process which includes the selection, training, understanding, and evaluation and improvement mechanisms for our Site Supervisors. The program includes reviews of regulations, guidelines and Obsidian policies, procedures and standards.	Site Supervisor Program Vendor Management Program	