

bp Canada Energy Group ULC 2023 Amendment
 2023 EA Amendment
 Reviewed by: C-NLOPB, DFO, NL FFA, FFAW, ECCC and DND
 Response by bp March 29 2023

Number	Reviewer	Section	Comment	bp Response
1	C-NLOPB	2.3.3 Seabed Monitoring and Sampling	Please clarify why the multicorer, deployed from the vessel, is unlikely to have a camera setup.	The multicorer available for deployment is not equipped with a camera however the need for one would be evaluated should a multicorer be used. The sentence has been revised as follows: <i>To increase the probability of obtaining samples successfully and to minimize interaction with corals and sponges, the use of a camera on the multicore can be considered .</i>
2	DFO	MPC General Comment	DFO has assessed the additional activities outlined in EA Amendment and determined they are likely to pose a low risk. These activities include collection of sediment push cores, C&S collection (5-10 specimens), and moored equipment. Can BP confirm how many moorings are required, and an estimate of the total benthic footprint? We believe they are planning on a maximum of 17 transponders + 1 mooring for the oceanography program + 2 moorings for acoustic monitoring. Is this correct? The wording is a little unclear in Section 2.3.2.	See next item 3 below for details on the transponders. Estimates of the benthic footprint are provided in section 6.1.3 and 6.1.4. The program will include deployment of two oceanographic monitoring moorings, two acoustic monitoring moorings, and up to 17 transponders. As noted in Section 6.1.3; "Four moorings will be deployed and retrieved from an offshore supply vessel as part of the environmental monitoring program." Section 2.3.2 will be updated as follows to clarify the number of moorings: <i>The oceanography program involves the deployment of two oceanographic monitoring moorings. The first mooring is equipped with a Datawell Wave Buoy, which collects wave measurements. The second mooring is equipped with Acoustic Doppler Current Profilers (ADCP) to record water column currents. The buoys will be attached to a single mooring and positioned approximately 4 and 5 km away from the well site respectively (Figure 2-2).</i> <i>The acoustic monitoring program will consist of deployment of two Autonomous Long-Term Observatory (ALTO) landers (Figure 2-4). The landers will be deployed at two stations to measure near-field and far-field underwater sound.</i>
3	DFO	2.3.1, Transponder Placement	Is it possible to have a figure showing the location of the transponders?	A diagram of the DP transponder array (See Figure 2-3 Excel Tab) will be added to the section. The figure reflects 8 dp transponders that are to be positioned approximately 233 m away from the wellsite. The text in Section 2.3.1 has been updated as follows to clarify the numbers and location of transponder: <i>"ROV support operations include the placement of five to seven transponders for setting up marker buoys at both the primary well site and the respud site. The placement of the marker buoy transponders will be determined in the field, however the closest transponder to each site will be located approximately at 150 m and a single array will be formed around the two sites. These transponders will be recovered during the post drilling cruise for the environmental surveys. In addition, eight to ten dynamic positioning (DP) transponders will also be installed at the primary well site to provide the drilling unit with the data required to maintain safe positioning over the well. The DP transponders will be positioned approximately 233 m from the wellsite in an array as shown in Figure 2-3. The DP transponders will be calibrated by the drilling unit upon arrival and will remain in place until recovered during the post drilling cruise for the environmental surveys. The transponders are estimated to have a seabed footprint of <1 m2. All transponders will remain for the duration of the drilling activity and recovered following the cessation of the drilling program (150-200 days)."</i>

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4	DFO	2.3.2 Environmental Monitoring Using Moored Instruments	Figure 2-3: Wave Rider and Mooring Assembly Figure 2-3: Wave Rider and Mooring Assembly Why is there 76m between the anchor and acoustic release? Will 76m of neutral/positive bouyant rope be left on the seafloor?	The wave rider mooring design has been updated, the rope below the acoustic release has been removed. See Figure 2-4.
5	DFO	2.3.3, Seabed Monitoring and Sampling	"Other sediment monitoring and sampling technologies of similar footprints (1-2m2) may be used and would be deployed via the ROV or the vessel." Outline the other sediment monitoring and sampling technologies, other than push cores or multicores, that may be used and in what scenarios this may happen.	The reference to other technologies has been removed as there are insufficient details for assessment.
6	DFO	Section 2.3.3, Seabed Monitoring and Sampling ROV push cores	"An ROV will be used to collect sediment cores of the seabed at varying distances" Can you provide details onto the range of distances?	As noted in the section "A detailed sampling plan is presently in a draft form and will be provided to the C-NLOPB and DFO for review well in advance of departure" that will indicate sampling distances from the wellsite. The sampling locations will be in areas of predicted drill cuttings deposition and potential reference areas. All the locations will be within 1 km from the well site. The text in Section 2.3.3 will be updated as follows: "ROV Push Cores: An ROV will be used to collect sediment cores of the seabed at varying distances within 1 km from the well centre."
7	DFO	2.3.3, Seabed Monitoring and Sampling, Multicorer	"The multicorer option is presently not available for the pre-drilling sediment sampling due to logistical constraints" What are the constraints? How will these be over-come?	The statement has been deleted as it was not relevant for assessment purposes. The specific details of the monitoring and sampling program will be determined in consultation with the C-NLOPB and DFO through submission of a survey and sampling plan.
8	DFO	4.1.1. 2022 Ephesus Coral and Sponge Survey	Figure 4-1 Total Sea Pen Abundance Across All 50 m Transects (bp Canada 2023) Should this read "Total Sea Pen <u>Density</u> Across All 50 m Transects"?	The Figure caption has been updated to reflect density.
9	NL FFA	2.2 Schedule	The amendment proposes broadening of the temporal scope to include activities from March to October. This timeframe is during peak fisheries season for many commercially important fisheries adjacent to Newfoundland and Labrador. The project includes potential interactions with fisheries and other ocean users. The fishing industry is an important ocean stakeholder and as such, FFA recommends the proponent maintain engagement with fish harvesters in adjacent areas as a top priority throughout the duration of the project's life stages.	bp certainly recognizes the importance of consultations with the fishing industry. The fishing industry is an important stakeholder and bp will continue engagement with fish harvesters. Planning is underway for 2023 surveys and Indigenous groups, NL Fishers and other stakeholders were engaged through existing communication channels in early March 2023. As noted in Section 8, these consultations and communications will build upon the engagement efforts for the planned exploration drilling program and bp will continue to address potential questions and concerns as they arise. bp will continue to conduct mitigations to reduce Project activity interactions with Fisheries and other Ocean Users as described in the original EA. This includes communicating the timing and location of the ROV survey to Indigenous groups and commercial fisheries stakeholders prior to mobilization, and posting a Notice to Shipping immediately prior to the start of the survey.

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10	NL FFA	Section 4.1.1 2022 Ephesus Coral and Sponge Survey	The proponent notes that several species of finfish, including the Northern wolffish (Schedule 1 SARA species), as well as squid and shrimp were found along several survey lines. Although the proponent notes in Section 4.6 that the chosen area is located in a marine refuge, where there is a prohibition on bottom contact fisheries activities, there are fishing areas adjacent that should be considered.	The Project activities (ROV surveys, mooring deployment, and transponder placement) are only permitted to occur within bp's exploration licence (EL) areas (EL1168 and EL1148) that are entirely contained within the marine refuge. However, there are areas adjacent to the marine refuge that are open to commercial fishing as described in Section 4.7 of the original EA.
11	NL FFA	Section 4.1.1 2022 Ephesus Coral and Sponge Survey	Though the proponent recognizes that the project area overlaps with large gorgonian corals and sponges as sampling work will be completed, as outlined in Section 4.1.1, FFA further highlights the vulnerability of these species, and that they play fundamental roles in benthic ecosystems. It is advised that the work in these areas proceed with caution as these species are easily disrupted.	The importance of corals and sponges in benthic ecosystems is recognized. Section 2.3.3 has been updated to state sediment sampling will be conducted in manner which minimizes interaction with surrounding corals and sponges if present.
12	NL FFA	Section 4.4.1., Recovery Strategies and Plans	There have been increased sightings of NARWs in Newfoundland and Labrador waters in recent years. The NARW is particularly vulnerable to extinction, being that it is a slow growing species with only approximately 336 animals remaining worldwide. Fisheries and Oceans Canada (DFO) and Transport Canada have implemented a number of protective measures in an effort to minimize interactions with NARWs, including listing them as Endangered under the Canadian federal Species at Risk Act (SARA). From an economic perspective, Canada is now required to demonstrate stringent efforts to protect marine mammals to meet the United States (U.S) Import Provisions under the Marine Mammal Protection Act so that Canada may continue to export fish and seafood to the U.S. The proponent should be aware of the possibility that interactions with NARWs can affect Canada's ability to export seafood. Under Federal Marine Mammal Regulations, the proponent must keep a minimum of 100 meters away from whales, dolphins, and porpoises, and keep a minimum of 200 meters away if they are in resting position or with their calf.	Thank you for sharing the potential economic impacts associated with the protection of the North Atlantic Right Whale. The North Atlantic Right Whale was noted in the original EA and subsequent EA Update as being species at risk that has the potential to occur within the Study Area. To minimize the possibility of marine mammal interactions, as specified in the original EA, the survey vessel will travel to and from the Project Area at a maximum speed of 22 km/hour (12 knots), with the exception of emergency situations. At this speed, the risk of collision with marine mammals and sea turtles will be reduced. A marine mammal observer will be present onboard the survey vessel as part of the mitigation and monitoring for this Project. In the event that a marine mammal or sea turtle is detected in proximity to the vessel, vessel speed will be reduced to avoid collision.
13	FFAW	General Comment	The amended temporal scale warrants extensive and continuous communication with the fishing industry throughout. The overall length and frequency of field programs has increased. Between March and October, countless fisheries open and close, hundreds of vessels will traverse the surrounding area and thousands of fishing lines will encompass the outer limits of the project location. Extreme caution and attentiveness are imperative when navigating outside of the Marine Refuge where turbot fishing grounds exist. There is an expectation that proactive consultations with the fishing industry will occur. It is crucial that effective and regular communication takes place with FFAW throughout the lifespan of these activities particularly due to the seasonality and location. Proactive mitigation will ensure minimal risks. We look forward to building upon the existing channels of communication established with bp thus far.	The fishing industry is an important stakeholder and bp will continue engagement with fish harvesters. Planning is underway for 2023 surveys and Indigenous groups, NL Fishers and other stakeholders were engaged through existing communication channels in early March 2023. As noted in Section 8, these consultations and communications will build upon the engagement efforts for the planned exploration drilling program and bp will continue to address potential questions and concerns as they arise." bp will continue to conduct mitigations to reduce Project activity interactions with Fisheries and other Ocean Users as described in the original EA. This includes communicating the timing and location of the ROV survey to Indigenous groups and commercial fisheries stakeholders prior to mobilization, and posting a Notice to Shipping immediately prior to the start of the survey.