

Post Office Box 244027 Anchorage, AK 99524-4027

3800 Centerpoint Drive Suite 1400 Anchorage, AK 99503

Phone: 907/777-8300 Fax: 907/777-8301

July 28, 2023

Permits and Conservation Division NMFS Office of Protected Resources pr.itp.monitoringreports@noaa.gov 1315 East-West Highway Silver Spring, Maryland 20910

and

Greg Balogh NMFS Alaska Region Protected Resources Division 222 W. 7th Ave. #43 Anchorage, AK 99513

Re: Hilcorp Cook Inlet Annual Report for LOA under promulgated Incidental Take Regulations 85 FR 83451

Dear NMFS Office of Protected Resources and Mr. Balogh:

Hilcorp Alaska, LLC (Hilcorp) respectfully submits this annual end-of-season report of ringed seal (*Phoca* [*Pusa*] *hispida*) observations during the winter 2022/2023 ice trail season. Submittal of this report fulfills the annual end-of-season reporting requirement in Section 5(e) of the Hilcorp Letter of Authorization (LOA) issued on 22 December 2020, for the period of 22 December 2020 through 30 November 2025, for takes of marine mammals incidental to sea ice road and sea ice trail construction, maintenance, and operation on the North Slope of Alaska.

The ice trail was open for travel 18 January 2023 and closed for the season on 19 May 2023. During the winter 2022/2023 season, 502 one-way trips were made across the ice trail primarily for the purposes of personnel transport and resupply; averaging 4.18 one-way trips on the ice trail per day. Hilcorp began ice trail travel via hovercraft on 20 May 2023 and ended on 22 June 2023. An ice road was not constructed during the season. The general route of the ice trail between West Dock and Northstar is approximately 7.5 miles. The latitude and longitude of each mile, half mile, and any sighting specific mile marker (if between the two) are noted below in Figure 1 and depicted in Table 1.



Figure 1. Northstar Unit Offshore Ice Trail 2022-2023 Winter Season

Mitigation and monitoring during ice trail construction, maintenance, and use was conducted in accordance with Hilcorp's Marine Mammal Mitigation and Monitoring Plan (4MP). As required in the Final Rule, Hilcorp also implemented best management practices in accordance with Hilcorp's Best Management Practices (BMP) Plan to minimize impact from ice trail activity on ice seal behaviors such as lairing and pupping. The 4MP and BMP Plan are provided in Attachments 1 and 2, respectively, for reference.

Ice seal surveys were conducted every other day from 1 March through 18 May. A summary table of data collected during these surveys includes the date and time of the survey start, the observer's name, weather at the time of the survey, presence/absence of seals, number and life stage of animals observed (i.e., pup or adult), behavior of observed animals, and activity occurring nearest the sighting (Attachment 3). Per mitigation meausre 5(b)(ii) Hilcorp personnel are trained to report all sighting information when a seal is observed within 50 meters (m) of the ice trail. When sightings of seals occur at distrances greater than 50 m from the ice trail, observers are asked to capture as much information as possible which is not always the full suite of information described above. Minimum and maximum snow depth measurements at each half mile marker are also provided in Attachment 3. A copy of each individual data log is provided in Attachment 4.

During the season, 38 surveys were conducted. There were 22 sightings wherein a total of 29 ringed seals were observed during 6 of those surveys. On 22 April, a survey was scheduled but was unable to be conducted due to the presence of a polar bear resting on the ice path. A polar bear observation report was completed and submitted to the United States Fish and Wildlife Service. A second scheduled survey could not be conducted due to adverse weather conditions on 8 May.

On May 18th, a seal hole was observed by the Tucker driver on the western edge of the ice trail at mile 1.5 around 2:50pm. He had one delineator with him and placed it approximately 10' north of the seal hole (see Figure 1). The ice trail season was scheduled to end on May 19th. Hilcorp contacted the Anchorage NMFS ESA office for mitigation guidance for the seal hole and requested one more traverse of the area on May 19th. Bonnie Easley-Appleyard asked that the vehicle operators stay as far away from the seal hole as possible, and to reduce speed to 5 mph at a distance of 150 m before and after the seal hole. This mitgation was adhered to on the May 19th traverse and no seal was observed at the hole.

All occurrences of seal sightings were greater than 200 meters from the ice trail; therefore, no mitigation measures were enacted during this season for ringed seal observations. The nearest activity during all sightings was vehicle transit associated with the seal survey. Table 1 provides coordinates for each mile marker along the trail, and the sighting specific mile markers (if between the two) and Table 2 summarizes these sightings.

Mile Marker	Latitude (NAD83)	Longitude (NAD83)
0	70.399292	-148.528868
0.5	70.405481	-148.542086
1	70.411017	-148.553
1.5	70.417875	-148.564333
2	70.423317	-148.575367
2.5	70.430701	-148.585104
2.8	70.434497	-148.592143
3	70.435983	-148.595833
3.4	70.442048	-148.604949
3.5	70.443140	-148.607352
4	70.448333	-148.6189
4.5	70.455605	-148.630595
5	70.460467	-148.64255
5.3	70.465078	-148.649306
5.5	70.467661	-148.654112
6	70.472617	-148.666033
6.5	70.479745	-148.678145
7	70.484533	-148.689917
7.5	70.492016	-148.699774

Table 1. Ice Trail Mile Markers and Corresponding Coordinates

Sighting No.	Date (mm/dd/yyyy)	Time (00:00)	Location (Lat/Long	Weather	Number of Seals	Juvenile or Adult	Behavior	Activity Occurring	Distance from the
			Marker)					Sighting	ice fraii
1	5/4/2023	Between 14:30	Mile Marker 1	Overcast	1	Adult	Resting	Tucker SnowCat	~400 m
		and 14:40						*Vehicle transit associated with the seal survey	
2	5/4/2023	Between 16:50 and 17:00	Mile Marker 7	Overcast	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	~300 m
3	5/10/2023	Between 11:45 and 14:35	Mile Marker 1.5	Overcast	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>250 m
4	5/10/2023	Between 11:45 and 14:35	Mile Marker 2	Overcast	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	~250 m
5	5/10/2023	Between 11:45 and 14:35	Mile Marker 5.5	Overcast	2	1 Adult, 1 Juvenile	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>250 m
6	5/10/2023	Between 11:45 and 14:35	Mile Marker 6.5	Overcast	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>250 m

Table 2. Ringed Seal Sightings During Ice Seal Surveys 1 March through 18 May 2023

Sighting No.	Date (mm/dd/yyyy)	Time (00:00)	Location (Lat/Long or Mile	Weather	Number of Seals	Juvenile or Adult	Behavior	Activity Occurring Near the	Distance from the Ice Trail
7	5/10/2023	Between	Marker) Mile	Overcast	1	Adult	Resting	Sighting Tucker	>250 m
		11:45 and 14:35	Marker 7.5					SnowCat *Vehicle transit	
								with the seal survey	
8	5/12/2023	Between 14:50 and 15:40	Mile Marker 5.3	Overcast	2	2 Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>250 m
9	5/12/2023	Between 14:50 and 15:40	Mile Marker 7.5	Overcast	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>250 m
10	5/14/2023	Between 12:30 and 15:00	Mile Marker 1.5	Partly Cloudy	2	2 Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
11	5/14/2023	Between 12:30 and 15:00	Mile Marker 2.0	Partly Cloudy	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
12	5/14/2023	Between 12:30 and 15:00	Mile Marker 2.8	Partly Cloudy	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m

Sighting No.	Date (mm/dd/yyyy)	Time (00:00)	Location (Lat/Long or Mile Marker)	Weather	Number of Seals	Juvenile or Adult	Behavior	Activity Occurring Near the Sighting	Distance from the Ice Trail
13	5/14/2023	Between 12:30 and 15:00	Mile Marker 3.4	Partly Cloudy	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
14	5/14/2023	Between 12:30 and 15:00	Mile Marker 5.5	Partly Cloudy	2	2 Adults	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
15	5/14/2023	Between 12:30 and 15:00	Mile Marker 7.5	Partly Cloudy	2	2 Adults	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
16	5/16/2023	Between 12:35 and 15:35	Mile Marker 2	Fog	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
17	5/16/2023	Between 12:35 and 15:35	Mile Marker 5.5	Fog	2	2 Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
18	5/18/2023	Between 09:10 and 12:00	Mile Marker 1.5	Clear	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m

Sighting No.	Date (mm/dd/yyyy)	Time (00:00)	Location (Lat/Long or Mile Marker)	Weather	Number of Seals	Juvenile or Adult	Behavior	Activity Occurring Near the Sighting	Distance from the Ice Trail
19	5/18/2023	Between 09:10 and 12:00	Mile Marker 2.0	Clear	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
20	5/18/2023	Between 09:10 and 12:00	Mile Marker 3.4	Clear	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
21	5/18/2023	Between 09:10 and 12:00	Mile Marker 5.5	Clear	2	2 Adults	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m
22	5/18/2023	Between 09:10 and 12:00	Mile Marker 7.5	Clear	1	Adult	Resting	Tucker SnowCat *Vehicle transit associated with the seal survey	>200 m

A total of 38 ringed seal surveys occurred along the ice trail from 1 March through 18 May. Each survey averaged 3.13 hours to complete, for a total of approximately 119 hours of ringed seal vehicle survey effort. Visibility was diminished to 0.25 miles on one day, 8 May, and no survey was conducted. Visibility was diminished to 0.5 miles on two days, 2 May and 6 May, accounting for 5.26 % of the survey effort. During all other survey effort visibility was greater than 0.5 miles, with 10 miles of visibility documented for 73.68 % of all survey effort.

Mitigation measures and best management practices as outlined in the attached 4MP (Attachment 1) and BMP Plan (Attachment 2), particularly the annual training as outlined in LOA Section 4(a)(2) and the every-other-day seal surveys after 1 March 2023, contributed greatly to effectively mitigating potential impacts to ringed seals. Hilcorp does not have any proposed changes to the Wildlife Interaction Plan, 4MP, or BMP Plan for NMFS' consideration at this time.

Please contact Jen Dushane at (907) 777-8549 or <u>jdushane@hilcorp.com</u> with questions regarding this report.

Respectfully submitted,

Jennifer Digitally signed by Jennifer Dushane (5265) Dushane (5265) Description Distance (5265)

Jen Dushane Sr. Wildlife Specialist Hilcorp Alaska, LLC

Attachments:

Attachment 1 – Marine Mammal Mitigation and Monitoring Plan

Attachment 2 – Best Management Practices Plan

Attachment 3 – Ice Seal Log Summary Table PDF & Excel

Attachment 4 – Ice Seal Survey Daily Log

Marine Mammal Mitigation and Monitoring Plan

Best Management Practices Plan

Ice Seal Log Summary Table

Ice Seal Survey Daily Logs

Marine Mammal Monitoring and Mitigation Plan for Joint Incidental Take Request for Alaska North Slope Ice Road, Trail and Pad ctivities

August 2019

Submitted by:



Hilcorp Alaska, LLC 3800 Centerpoint Drive, Suite 1400 Anchorage, AK 99503



Eni US Operating Co. Inc. 3800 Centerpoint Drive, Suite 00 Anchorage, AK 99503



ECO49 Consulting, LLC 618 NW Marken Street Bend, OR 97703 Telephone | 907.907.9714 www.eco49.com

TABLE OF CONTENTS

R	ONYN	AND ABBREVIATIONSiii
1.	INTR	RODUCTION1
	.1.	Purpose of the Plan
	.2.	Project Location and Description of Activities
2.	MITI	IGATION AND MONITORING
	.1.	Mitigation Measures
	.2.	Wildlife Training
	.3.	General itigation Measures 0
	.4.	Mitigation easures After arch st
	.5.	Monitoring Measures
	.6.	Ringed Seal Surveys
	.7.	Communication and Monitoring Procedures for Seal and Seal Structure Sightings
	.8.	Data Collection
	.9.	Reporting
		.9.1. Annual onitoring Report
		.9.2. Reporting of Unforeseen Events
3.	REFI	ERENCES17

List of Figures

Figure 1-1. Regional ap	
Figure 1-2. Northstar Production Island Ice Roads and Trails	
Figure 1-3. SID Ice Road/Trail and Ice Pads	6
Figure 1-4. Oooguruk Drillsite Ice Road and Ice Pad	7
Figure 1-5. Oooguruk Ice Road Alternate Location	8
Figure 2-1. Ice Road Schematic	

RONYMS ND ABBREVIATIONS

AKR	Alaska Regional Office.
CFR	Code of Federal Regulations
ESA	Endangered Species Act
Eni	Eni US Operating Co. Inc.
ft	.feet
GPS	Global Positioning System.
Hilcorp	.Hilcorp Alaska, LLC
ITA	Incidental Take Authorization
km	.kilometers
km	. square kilometers
LOA	Letter of Authorization
m	meters
mi	.miles
mi	. square miles
MMPA	Marine Mammal Protection Act
NMFS	National arine Fisheries Service
ODS	.Oooguruk Drill Site
OPP	Oliktok Production Pad
OPR	Office of Protected Resources
SID	. Spy Island Drillsite
U.S	.United States

1. INTRODUCTION

Hilcorp Alaska, LLC (Hilcorp) and Eni Petroleum Co., Inc. (Eni) have submitted a request to the National Marine Fisheries Service (NMFS), Office of Protected Resources (OPR), to develop regulations and issue 5-year Letters of Authorization (LOAs) under the Marine Mammal Protection Act (MMPA), Section 101(a)(5)(A), effective approximately December 2019, allowing potential incidental taking of small numbers of ringed seals (*Phoca hispida*) during construction, maintenance and operation of ice roads, trails and pads on Alaska's North Slope for the 5-year period 2019-2024. Ringed seals are resident in the Beaufort Sea, and during the ice-covered season from approximately early December through early July; they are the only marine mammal species under the jurisdiction of NMFS that is likely to be encountered.

A sea ice road is defined as a route across the sea ice created by clearing and grading snow and then pumping seawater through drilled holes in the ice until the desired thickness is achieved. The top layer is often strengthened by a freshwater cap of ice. The ice road corridors (disturbed area) generally range between 49 to 61 meters (m) (160 to 200 feet [ft]) wide, consisting of an approximately 18 to 30 m (60 to 100 ft) roadway with 15 to 18 m (0 to 60 ft) shoulders on each side. Delineators are used to mark the roadway at set intervals. These improved ice roads can be used by trucks, vans, and any other wheeled vehicles.

A sea ice trail is a route across sea ice created, used and maintained by equipment such as Tuckers, PistenBullys, snow machines or similar tracked equipment. These roads cannot be used by regular wheeled vehicles. Sea ice trails do not require seawater flooding and the width of the disturbed area is similar to or may be narrower than for ice roads.

Ice roads for offshore access to North Slope facilities are typically constructed beginning in late December or January and are used through approximately mid-May, depending on weather. All ice road, trail and pad construction by both Hilcorp and Eni would be initiated prior to March 1st to minimize potential impacts to ringed seals. Specific details regarding each company's ice roads, trails and pads are provided in Section 1.2.

1.1. Purpose of the Plan

In order to issue an LOA for an activity, Section 101(a)(5) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking." This marine mammal monitoring and mitigation plan (4MP) is a component of the request for rulemaking.

The MMPA implementing regulations at 0 CFR 216.104 (a)(13) indicate that requests for Incidental Take Authorizations (ITAs) must include the suggested means of accomplishing the necessary monitoring and reporting that would result in an increased knowledge of the species and the level of taking or impacts on populations of marine mammals that are expected to be present in the Action Area.

Hilcorp and Eni recognize that monitoring requirements should be designed to improve the understanding of one or more of the following:

• Occurrence of marine mammal species in the Action Area (e.g., presence, abundance, distribution, density);

- Nature, scope, or context of likely marine mammal exposure to potential stressors/impacts (individual or cumulative, acute or chronic), through better understanding of:) action or environment; 2) affected species (e.g., life history, dive patterns); 3) co-occurrence of marine mammal species with the action; or 4) biological or behavioral context of exposure (e.g., age, birthing or foraging areas);
- Individual responses to acute stressors, or impacts of chronic exposures (behavioral or physiological);
- How anticipated responses to stressors impact either:) long-term fitness and survival of an individual; or 2) population, species, or stock;
- Effects on marine mammal habitat and resultant impacts to marine mammals; and
- Mitigation and monitoring effectiveness.

In keeping with guidance provided by NMFS, Hilcorp and Eni have considered a number of monitoring and reporting opportunities that could contribute to the collective knowledge of the ringed seals and their habitat during the ice-covered season. However, during construction and maintenance of the ice roads, the potential to conduct meaningful research on potential impacts of these activities on ringed seals is limited for two reasons: 1) low densities and overall small numbers of ringed seals are anticipated to be in the region during ice-covered conditions; and 2) portions of the Action Areas are unsuitable for ringed seal lairs due to shallow depth or bottomfast ice. Generally, ringed seal densities are higher in water greater than 3 m (about 0 ft) in depth sufficient to allow underwater access to lairs and breathing holes.

1.2. Project Location and Description of ctivities

Seasonal ice roads and trails are required to operate facilities at Northstar Island for Hilcorp, and at the Spy Island Drillsite (SID) and Oooguruk Drillsite (ODS) for Eni. The locations of these facilities in the Beaufort Sea are shown on Figure -. Additional details on ice roads and trails constructed and maintained at the Northstar, SID and ODS facilities can be found is Sections .3 and .1 of the ITR petition.

Northstar, an artificial gravel island, is located in State of Alaska coastal waters about 9.7 kilometers (km) (6 miles [mi]) offshore from Point Storkersen in the Beaufort Sea (see Figures 1-1 and 1-2). Each year during the ice-covered season an approximately 11.7 km (7.3-mi) long ice road is constructed between Northstar and the Prudhoe Bay facilities at West Dock to transport personnel, equipment, materials, and supplies. In some years depending on operational needs and weather conditions, Hilcorp may elect to not build the main improved ice road. In this case, a primary ice trail that can support only tracked, lighter-weight vehicles would be built in the location of the improved ice road shown on Figure 1-4. Hilcorp usually builds the following unimproved ice trails to Northstar as shown in Figure 1- :

- Along the pipeline corridor from the valve pad near the Dew Line site to Northstar (9.5 km; 5.9 mi),
- From West Dock to the pipeline shore crossing (grounded ice along the coastline 7.8 km; 4.8 mi),

Two unimproved ice road paths from the hovercraft tent at Dockhead 2. One would go under the West Dock causeway bridge to Dockhead (1.4 km; 0.9 mi,) and the other would go around West Dock and

intersect the main ice road north of the Seawater Treatment Plant (.6 km; .9 mi,).Water depth at the island is about 12 m (about 40 ft). This region is covered by landfast ice in winter and with water depths greater than 3 m (10 ft). It is considered to be important overwintering and spring breeding habitat for ringed seals.

The 0.05 square kilometer (km) (11-acre) SID is also an artificial, gravel island constructed in shallow (1.8-2.4 m; 6-8 ft,), State of Alaska coastal waters approximately 4.8 km (3 mi) north of Oliktok Point and just south of the Spy Island barrier island (see Figures 1-1 and 1-3). Each year Eni builds an ice road extending 6.8 km (4.2 mi) offshore from Oliktok Production Pad (OPP) to SID. Following the same general construction methods used at Northstar, Eni also builds an unimproved ice trail just west of and parallel to the sea ice road corridor near SID. The ice trail is typically approximately 15 m (50 ft) west of the western edge of the ice road shoulder and is used when the ice road is being constructed. Once the ice road is open to regular traffic, the ice trail is not used. Two floating ice pad parking areas are also built at SID: a 152 m by 61 m (500 ft by 200 ft) area located on the southeast side of SID; and an additional 91 m by 46 m (300 ft by 150 ft) pad on the northeast side. While SID is situated in water depths considered unsuitable for ringed seals, each year a crack or lead has developed in the road between OPP and SID. Due to the open water in the ice at this location, seals may appear near this site as evident from the observation of a ringed seal pup in April 2018 (see Section 1.1 of the petition).

A single ice road and staging area ice pad are required each year to operate the ODS, which is situated in 1.2 to 1.8 m (4 to 6 ft) of water. As shown in Figure 1-4, the typical or proposed ice road extends 8.9 km (5.5 mi) offshore to the ODS. An alternative ice road as shown on Figure 1-5 would be located in shallower water and, therefore, can be grounded and used earlier in the season. The alternative route extends 11.2 km (7 mi) offshore and is used in years when an early road completion is required or when extra heavy loads, such as a drilling rig are expected. Either ice road is up to approximately 15 m (50 ft) wide with a similar width shoulder area on each side. The shoulders of the road are used when traffic must periodically detour around equipment or in areas where ice road maintenance is occurring. In addition, a grounded ice pad staging area is constructed on the southwest edge of the ODS (see Figures 1-4 and 1-5). The dimensions of the staging area are approximately 183 by 137 m (600 by 450 ft).

Similar to SID, the location of ODS has water depths considered unsuitable for ringed seals; however, to be precautionary and due to the potential for changes in ice conditions associated with changes in climate, Eni is including the ODS in the ITR petition and this associated mitigation and monitoring plan.

In addition to the ice trails described above, Hilcorp and Eni may need to construct several shorter length trails into undisturbed areas to work around unstable and unsafe areas of ice as the season progresses. Due to safety considerations these work-around or detour trails may need to be constructed after arch st. Typically, these detours deviate approximately 23 to 46 m (75 to 150 ft) from the original road or trail to allow crews to safely go around soft spots or cracks.



Figure 1-1. Regional Map



Figure 1-2. Northstar Production Island Ice Roads and Trails







Figure 1-4. Oooguruk Drillsite Ice Road and Ice Pad



Figure 1-5. Oooguruk Ice Road Alternate Location

2. MITIGATION AND MONITORING

Hilcorp and Eni perform ice-road construction in accordance with the best guidance available to avoid and minimize (to the greatest extent possible) impacts on the environment, ESA species, designated critical habitats and species protected under the MMPA. In order to avoid ringed seal dens or lairs, and to reduce the taking of ringed seals to the lowest level practicable, the following specific ice road/trail mitigation and monitoring measures will ensure the least practicable impact on ringed seals and their habitat.

Potential measures include consideration of the following factors: 1) the degree to which the successful implementation of the measure is expected to minimize adverse impacts to ringed seals; 2) the proven efficacy of the specific measure to minimize adverse impacts as planned based on monitoring plans from previous, similar activities; and 3) safety, feasibility, and practicability during implementation of the measure. Based on these factors, the mitigation and monitoring measures described in this plan accomplish the following objectives:

- Avoid or minimize injury to or death of ringed seals or any marine mammals;
- Minimize the likelihood that impacts will occur to the species, stocks and subsistence use of marine mammals that might occur along the ice roads, or the overall Action Areas;
- Shut down or monitor activities when seals are observed in or approaching the monitoring zone defined as 50 m (about 164 ft) on either side of the centerline of the road/trail (i.e., 100 m [about 328 ft] total width); and
- Avoid overlap of ice road/trail activities with traditional subsistence hunting locations and events; and
- Quantify and potentially reduce the number of marine mammals exposed to or taken by harassment (Level B).

2.1. Mitigation Measures

Hilcorp and Eni perform ice road and trail construction in accordance with the best guidance available to avoid and minimize (to the greatest extent possible) impacts on the environment, species protected under the MMPA and ESA, and designated critical habitats. In order to avoid ringed seal breathing holes and lairs, and to reduce the taking of ringed seals to the lowest level practicable, the following specific mitigation measures will ensure the least practicable impact on ringed seals and their habitat. These measures are proposed for the construction and maintenance of sea ice roads and trails in areas where water depth is greater than 3 m (10 ft) (the minimum depth preferred by ringed seals for establishing lairs) as well as any open leads in the sea ice requiring a temporary bridge during the ice road season. While the location of ODS has water depths considered unsuitable for ringed seals, to be precautionary and due potential changes in ice conditions and ringed seal habitat, Eni is including the ODS in this petition to ensure compliance with the MMPA. Ice road, trail and pad activities are described in Section 1.3. These measures were developed through close coordination with NMFS OPR and AKR. In letters to Eni (October , 2018) and Hilcorp (December 7, 2018), NMFS confirmed agreement with implementation of interim mitigation measures for the 2018-19 season. The interim mitigation and monitoring measures have been further refined and are described in Section 2.5 of this Plan.

The mitigation and monitoring measures are organized into the following categories: 1) Wildlife Training; 2) General Mitigation Measures (implemented throughout the ice road/trail season December through May); 3) mitigation measures to be implemented after March st; and 4) Reporting Requirements.

2.2. Wildlife Training

Prior to initiation of sea ice road and trail construction activities, project personnel associated with ice road construction, maintenance, or use (i.e., construction workers, surveyors, vehicle operators, security personnel, and the environmental team) will receive annual training on seal avoidance mitigation measures that is appropriate for the work that they will perform. The annual training for all such personnel will include reviewing applicable portions of the company's Wildlife Interaction Plan , which include the following measures:

- Do not approach or interact with any wildlife, it is prohibited.
- When traveling the ice road, follow directions of Security and posted signs.
- Notify appropriate personnel if a seal is observed within 50 m (164 ft) or if a seal structure (i.e., breathing hole or lair) is observed within 150 m (about 500 ft) of the centerline of the ice road/trail; or the edge of the ice pad or on the ice pad.
- Stay in the vehicle and continue safely on if a seal is observed near the road.

In addition to company-specific information and review of the mitigation measures, additional wildlife training for personnel involved in ice road construction/maintenance or seal monitoring will include:

- How to identify ringed seal adults and pups;
- Seal life history;
- Habitat and diet;
- Presence in project area;
- Importance of lairs, breathing holes and basking;
- Potential effects of disturbance; and
- Applicable laws and regulatory requirements.

2.3. General Mitigation Measures

These mitigation measures will be followed throughout the ice road/trail season. They are based on the following assumptions:

- Ice road/trail/pad construction occurs from approximately December st to mid-February (or as soon as sea ice conditions allow safe access and permit such activity);
- Operations and maintenance generally occur from approximately mid-February through mid- to late May. Ringed seals begin to establish lairs in late March. Therefore, NMFS is requiring that ice road construction be initiated no later than March st to reduce the potential for disturbance to ringed seal birth lairs or dens; and

¹ Training rosters can be made available to audit if requested. May also be referred to as a Wildlife Management Plan.

• Disturbance associated with construction prior to March st may deter pregnant seals from establishing lairs in the disturbed areas.

Winter sea ice road/trail/pad construction and use will begin prior to March st of each year (typically December through mid-February), which is before female ringed seals establish birthing lairs. Initiating on-ice activities early allows ringed seals to establish breathing holes and birthing lairs in undisturbed areas. Prior to establishing lairs, ringed seals are mobile and are expected to avoid the ice roads/trails/pads and construction activities.

The following mitigation measures will be implemented throughout the entire ice road/trail season, including during construction, maintenance, active use , and decommissioning:

- . Ice road/trail speed limits will be no greater than 45 miles per hour (mph); speed limits will be determined on a case-by-case basis based on environmental, road conditions and ice road/trail longevity considerations. Travel on ice roads and trails is restricted to industry staff.
- . Following existing safety measures, delineators will mark the roadway in a minimum of ¹/₄-mile increments on both sides of the ice road to delineate the path of vehicle travel and areas of planned on-ice activities (e.g., emergency response exercises). Following existing safety measures currently used for ice trails, delineators will mark one side of an ice trail a minimum of every ¹/₄ mile. Delineators may also be used to mark the centerline of the roadway.
- . Corners of rig mats, steel plates, and other materials used to bridge sections of hazardous ice, will be clearly marked or mapped using GPS coordinates of the locations.
- . Personnel will be instructed that approaching or interacting with ringed seals is prohibited.
- . If personnel encounter a ringed seal while driving on the road, they will be instructed to remain in the vehicle and safely continue.
- 6. If a ringed seal is observed within 50 m (64 ft) of the center of an ice road or trail or within 50 m (164 ft) of the ice pad edge or on the ice pad, the company's Security personnel or staff member who observed the seal contacts the Environmental Specialist in accordance with the Wildlife Management Plan with the information requested in Section 2.8 Data Collection.
 - a. The location of the seal will be physically marked with a visible marker while maintaining a distance of at least 15 m (50 ft) from the seal. However, markers will be placed in a way that avoids marker placement more than 15 m (50 ft) from the edge of the ice road/trail/pad.
 - b. The Environmental Specialist will relay the seal sighting location information to all ice road/trail/pad personnel and the company's office personnel responsible for wildlife interaction, following notification protocols described in the company-specific Wildlife Management Plan. All other data will be recorded and logged.
 - c. The Environmental Specialist or designated person will monitor the ringed seal to document the animal's location relative to the road/trail/pad. All work that is occurring

There are periods during which ice road travel does not occur. During these periods, no activity would occur along the road and therefore, implementation of measures would not be necessary.

The interval between delineators is specific to existing ice road safety measures and relates to how drivers assess and report weather and roadway conditions.

when the ringed seal is observed and the behavior of the seal during those activities will be documented until the animal is at least 50 m (164 ft) away from the center of the road/trail/pad or from the edge of the ice pad or until the animal is no longer observed.

d. The Environmental Specialist or designated person will contact appropriate state and federal agencies as required (see company-specific Wildlife Plans for notification details).

Other on-ice activities occurring prior to March st could include spill training exercises, pipeline surveys, snow clearing, and work conducted by vehicles such as PistenBullys®, snow machines, or rolligons. Prior to March st, these activities could occur outside of the delineated ice road/trail/pad and shoulder areas. Also during this period, all general mitigation measures will be implemented.

2.4. Mitigation Measures After March 1st

After March st and continuing until decommissioning of ice roads/trails/pads in late May or early June, on-ice activities can occur anywhere on sea ice where water depth is less than m (10 ft) (i.e., habitat not suitable for ringed seal lairs and breathing holes). However, after March st on those sections of the ice roads/trails/pads where water depth is greater than 3 m (10 ft), all activities must occur within the boundaries of the driving lane/ice pad or shoulder area of the ice road/trail/pad (see Figure -1) and other previously disturbed areas (e.g., spill and emergency response areas, snow push areas), as long as personnel safety is ensured. In addition to the general mitigation measures, the following measures will also be implemented after March 1st:

. Ice road/trail construction, maintenance and decommissioning will be performed within the boundaries of the road/trail and shoulders, with most work occurring within the driving lane. Equipment travel will be limited to within the driving lane and shoulder when safety of personnel can be ensured (see Figure 2-1).

. Ice road/trail/pad construction and maintenance activities will remain 50 m (64 ft) from a seal and 150 m (about 500 ft) from a seal structure (i.e., breathing holes and lairs) except under

emergency conditions when blading or snow blowing is necessary. If blading or snow blowing must occur within 50 m (64 ft) from a seal or 150 m (about 500 ft) from a seal structure, the snow will first be pushed so that it is blown downwind of the animal or lair.

- . Vehicles will not stop within 50 m (64 ft) of identified seals or 150 m (about 500 ft) of known seal lairs.
- . Tracked vehicle operations will be limited to the previously disturbed ice trail areas when safety of personnel can be ensured. When safety requires a new ice trail to be constructed



* Driving lane will be marked with delineators

Figure 2-1. Ice Road Schematic

As detailed in the Wildlife Management Plan.

after March 1st, construction activities such as drilling holes in the ice to determine ice quality and thickness will be conducted only during daylight hours with good visibility. Ringed seal structures will be avoided by a minimum of 150 m (about 500 ft) during ice testing and new trail construction. Any observed ringed seal structures will be reported and marked as described in Section 2.7. Once the new ice trail is established, tracked vehicle operation will be limited to the disturbed area when safety of personnel is ensured.

2.5. Monitoring Measures

The following monitoring and reporting activities will be implemented by Eni and Hilcorp, along with the mitigation measures described in Sections .3 and 2.4, to avoid and minimize potential impacts to ringed seals during ice road/trail construction, operation and maintenance each year.

2.6. Ringed Seal Surveys

If an ice road or trail is being actively used⁶, a dedicated observer will conduct a survey along the sea ice road/trail during daylight conditions with good visibility to observe if any ringed seals are within 0 m (about 500 ft) of the roadway corridor. These protocols will be followed:

- . Surveys will be conducted every other day during daylight hours. Survey protocol consists of driving the ice road and stopping every ½ mile to observe the exposure area for approximately 5 minutes on either side of the corridor to check for the presence of seals.
- . Observers for ice road/trail activities need not be trained Protected Species Observers (PSOs), but they must have received the training described in Section 1 and understand the applicable sections of the Wildlife Management Plan. In addition, they must be capable of detecting, observing and monitoring ringed seal presence and behaviors, and accurately and completely recording data.
- . When performing observations, observers will have no other primary duty than to watch for and report observations related to ringed seals during this survey. If the observer is driving a vehicle, then the survey must be performed when the driver stops, at periodic intervals sufficient to complete a thorough assessment of the area, given visibility conditions. If weather conditions become unsafe, the monitoring activity will be discontinued.

2.7. Communication and Monitoring Procedures for Seal and Seal Structure Sightings

If a ringed seal is observed within 50 m (164 ft) or if a seal structure (i.e., breathing hole or lair) is observed within 150 m (about 500 ft) of the centerline of the ice road/trail, or the edge of the ice pad or on the ice pad, the location of the seal or seal structure will be reported to the Environmental Specialist⁷, who will then relay the sighting location information to all ice road personnel. In addition, the company's office personnel responsible for wildlife interaction would be notified following protocols described in each company's specific Wildlife Interaction Plan (see also Section 2.9 *Reporting*). The following procedures will also be followed:

⁶ Any days when there is no traffic on an ice road, monitoring for ringed seals will not occur in order to minimize potential for interactions with seals.

⁷ Also referred to as an Environmental Advisor in Wildlife Management / Interaction Plans.

- Construction, maintenance or decommissioning activities associated with ice roads, trails and pads will not occur within 50 m (164 ft) of the observed ringed seal, but may proceed as soon as the animal moves on its own more than 50 m (164 ft) from the activities or has not been observed within that area for at least 24 hours. Transport vehicles (i.e., vehicles not associated with construction, maintenance or decommissioning) may continue their route within the designated road/trail without stopping.
- As soon as practicable after the initial sighting, the Environmental Specialist or designated person will observe the ringed seal for approximately 15 minutes to document the animal's location relative to the road/trail/pad. All work that is occurring when the ringed seal is observed and the behavior of the seal during this observation period will be documented until the animal moves more than 50 m (164 ft) from the center of the road/trail, or more than 50 m (164 ft) from the edge of the ice pad, or is no longer observed. If the seal remains in the area after the 15-minute observation period, monitoring will continue every six hours during daylight conditions.
- . If a ringed seal structure (i.e., breathing hole or lair) is observed within 150 m (about 00 ft) of the ice road/trail, the location of the structure will be reported to the Environmental Specialist who will then carry out notification protocol described above.
 - a. The seal structure will be marked by placing a pole and flag or other easily visible marker about m (50 ft) from the location of the lair.
 - b. Monitoring will continue every six hours during daylight conditions on the day of the initial sighting to determine whether a ringed seal is present. Monitoring will consist of observing the structure from a distance of at least 150 m (about 500 ft) for approximately 15 minutes each time. After the first hours, monitoring for the seal will occur every other day the ice road/trail/pad is being used unless it is determined the structure is not actively being used (i.e., a seal is not sighted at that location during monitoring). A lair or breathing hole does not automatically imply that a ringed seal is present.
 - c. During this monitoring period, maintenance work will proceed cautiously as to minimize impacts or disturbance to area.

2.8. Data Collection

The Environment Specialist, or designated person, will record the following information during survey efforts and sighting events:

- . The date and start/stop time for each survey including effort in total number of hours of observation. This will include a summary of environmental conditions such as visibility that can affect ringed seal or lair detection;
- . Date and time of each significant event (e.g., seal or seal structure sighting) and subsequent monitoring;
- . Date, time, and duration for each sighting event;
- . Number of animals per sighting event; and number of adults/juveniles/pups per sighting event;

- Primary, and, if observed, secondary behaviors of seals in each sighting event;
- 6. Geographic coordinates for the observed animals or structure (breathing hole or lair), with the position recorded by using the most precise coordinates practicable (coordinates must be recorded in decimal degrees, or similar standard, and defined coordinate system); and
- 7. Mitigation measures implemented to minimize impacts.

2.9. Reporting

Hilcorp and Eni propose to each submit an annual monitoring report after the end of the ice road/trail/pad season to summarize the activities during ice road/trail/pad construction, maintenance, use and decommissioning that occurred approximately December through May of that year. Records associated with any ringed seal observations and monitoring will be transmitted to NMFS prior to each subsequent ice road/trail season (i.e., generally by late summer, prior to the subsequent ice road/trail/pad season).

If a specific mitigation or monitoring measure is implemented during the ice road/trail activities (e.g., a breathing hole is monitored for seal presence), then a preliminary report of the activity will be submitted within days after the cessation of that activity.

If a seal is observed within 50 m (164 ft) of the roadway during ice road/trail activities, or the edge of the ice pad or on the ice pad then notification to the Environmental Specialist and other staff and agency personnel will be undertaken as described above.

2.9.1. Annual Monitoring Report

Annual and final reports will be submitted via electronic mail to the appropriate NMFS staff including the NMFS AKR Protected Resources Division Supervisor and staff in OPR, Permits and Conservation Division in Silver Spring, Maryland.

Digital, queryable documents containing all observations and records, and digital, queryable reports will be submitted to: NMFS AKR Protected Resources Division Supervisor, Greg Balogh, at greg.balogh@noaa.gov and to OPR, Permits and Conservation Division, NMFS, and Shane Guan, at shane.guan@noaa.gov. In the event that this contact information becomes obsolete, call 907-271-5006 for updated reporting contact information.

2.9.2. porting of Unforeseen Events

In the unanticipated event that the specified activities along the ice road construction clearly causes the take of a marine mammal in a manner prohibited by the LOA, such as an unforeseen injury or mortality to a pinniped, the observer will report the incident to the Environmental Specialist, in accordance with their Wildlife Interaction/Management Plan, who would then relay that information to the OPR, Permits and Conservation Division, NMFS , and NMFS AKR Protected Resources Division (contact information provided above). This communication would occur as soon as practicable. A report documenting the incident would include:

- Time, date, and location (latitude/longitude) of the incident;
- Description of the incident;
- Water depth;

- Environmental conditions (e.g., wind speed and direction, and visibility);
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

In the event that an observer or company personnel discovers an injured or dead marine mammal, the cause of the injury or death is unknown, and the death is relatively recent (i.e., in less than a moderate state of decomposition), the incident would be reported to the OPR, Chief of the Permits and Conservation Division, NMFS in Silver Spring, Maryland (01-427-8 401) and the Marine Mammal Network Alaska Stranding Coordinator in Alaska (Phone number 1-877-92 -7773 or 1-877-9-AKR-PRD), as soon as practicably possible. The report would include the same information identified in the paragraph above. Activities would be allowed to continue while NMFS reviews the circumstances of the incident. NMFS would work with Hilcorp or Eni to determine whether modifications in the activities are appropriate.

Under such circumstances that the injury or death is not associated with or related to the activities authorized in the LOA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the incident would be reported to the OPR, Chief of the Permits and Conservation Division, NMFS or by email to the Alaska Stranding Coordinator within 24 hours of the discovery. Photographs, video footage (if available), and any other documentation of the stranded animal sighting will be provided to NMFS and the Marine Mammal Stranding Network.

3. REFERENCES

NMFS (National Marine Fisheries Service). 2000. Final Rule: Taking Marine mammals Incidental to Construction and Operations of Offshore Oil and Gas Facilities in the Beaufort Sea. *Federal Register*, Vol. 65, No. 102, Thursday May 25, 2000.

ALASKA NORTH SLOPE ICE ROAD AND ICE TRAIL BEST MANAGEMENT PRACTICES

Best Management Practices Introduction and Definitions

The following Best Management Practices (BMPs) and monitoring measures are applicable to operations on the Alaska North Slope. They are proposed for the construction and maintenance of sea ice roads and sea ice trails in areas where water depth is greater than 10 feet (ft) (the minimum depth required to establish ringed seal lairs) as well as any open leads in the sea ice requiring a temporary bridge during the ice road season. These BMPs do not apply to land-based ice roads/trails or ice roads/trails crossing lakes. These measures are intended to avoid and minimize interactions with ringed seals. For the purposes of these BMPs, sea ice roads and trails are generally defined1 as follows:

- Sea Ice Road: a route across sea ice created by clearing and grading snow, then pumping seawater through drilled holes in the sea ice until the desired thickness is achieved. The top layer is typically strengthened by a fresh water cap of ice.
- Sea Ice Trail: a route across sea ice created, used and maintained by equipment such as Tuckers, PistenBullys, snow machines or similar tracked equipment. Sea ice trails do not require seawater flooding.

Hilcorp and Eni perform ice-road construction in accordance with the best guidance available to avoid and minimize (to the greatest extent possible) impacts on the environment, ESA species, designated critical habitats and species protected under the MMPA. In order to avoid ringed seal dens or lairs, and to reduce the taking of ringed seals to the lowest level practicable, the following specific ice road/trail mitigation and monitoring measures will ensure the least practicable impact on ringed seals and their habitat.

Potential measures include consideration of the following factors: 1) the degree to which the successful implementation of the measure is expected to minimize adverse impacts to ringed seals; 2) the proven efficacy of the specific measure to minimize adverse impacts as planned based on monitoring plans from previous, similar activities; and 3) safety, feasibility, and practicability during implementation of the measure. Based on these factors, the mitigation and monitoring measures described in this plan accomplish the following objectives:

- Avoid or minimize injury to or death of ringed seals or any marine mammals;
- Minimize the likelihood that impacts will occur to the species, stocks and subsistence use of marine mammals that might occur along the ice roads, or the overall Action Areas;
- Shut down or monitor activities when seals are observed in or approaching the monitoring zone defined as 50 m (about 164 ft) on either side of the centerline of the road/trail (i.e., 100 m [about 328 ft] total width); and
- Avoid overlap of ice road/trail activities with traditional subsistence hunting locations and events; and

• Quantify and potentially reduce the number of marine mammals exposed to or taken by harassment (Level B).

The BMP is organized into the following categories: 1) Wildlife Training; 2) General Mitigation Measures (implemented throughout the ice road/trail season December through May); 3) mitigation measures to be implemented after March 1st; 4) Monitoring Measures; and 5) Reporting Requirements.

1. Wildlife Training

Prior to initiation of sea ice road and trail construction activities, project personnel associated with ice road construction, maintenance, or use (i.e., construction workers, surveyors, vehicle operators, security personnel, and the environmental team) will receive annual training¹ on seal avoidance mitigation measures that is appropriate for the work that they will perform. The annual training for all such personnel will include reviewing applicable portions of the company's Wildlife Interaction Plan², which include the following measures:

- Do not approach or interact with any wildlife, it is prohibited.
- When traveling the ice road, follow directions of Security and posted signs.
- Notify appropriate personnel if a seal is observed within 50 m (164 ft) or if a seal structure (i.e., breathing hole or lair) is observed within 150 m (about 500 ft) of the centerline of the ice road/trail; or the edge of the ice pad or on the ice pad.
- Stay in the vehicle and continue safely on if a seal is observed near the road.

In addition to company-specific information and review of the mitigation measures, additional wildlife training for personnel involved in ice road construction/maintenance or seal monitoring will include:

- How to identify ringed seal adults and pups;
- Seal life history;
- Habitat and diet;
- Presence in project area;
- Importance of lairs, breathing holes and basking;
- Potential effects of disturbance; and
- Applicable laws and regulatory requirements.

2. General Mitigation Measures

These mitigation measures will be followed throughout the ice road/trail season. They are based on the following assumptions:

- Ice road/trail/pad construction occurs from approximately December 1st to mid-February (or as soon as sea ice conditions allow safe access and permit such activity);
- Operations and maintenance generally occur from approximately mid-February through mid- to late May. Ringed seals begin to establish lairs in late March. Therefore, NMFS is requiring that

¹ Training rosters can be made available to audit if requested.

² May also be referred to as a Wildlife Management Plan.

ice road construction be initiated no later than March 1st to reduce the potential for disturbance to ringed seal birth lairs or dens; and

• Disturbance associated with construction prior to March 1st may deter pregnant seals from establishing lairs in the disturbed areas.

Winter sea ice road/trail/pad construction and use will begin prior to March 1st of each year (typically December through mid-February), which is before female ringed seals establish birthing lairs. Initiating on-ice activities early allows ringed seals to establish breathing holes and birthing lairs in undisturbed areas. Prior to establishing lairs, ringed seals are mobile and are expected to avoid the ice roads/trails/pads and construction activities.

The following mitigation measures will be implemented throughout the entire ice road/trail season, including during construction, maintenance, active use³, and decommissioning:

- 1. Ice road/trail speed limits will be no greater than 45 miles per hour (mph); speed limits will be determined on a case-by-case basis based on environmental, road conditions and ice road/trail longevity considerations. Travel on ice roads and trails is restricted to industry staff.
- 2. Following existing safety measures, delineators will mark the roadway in a minimum of ¼-mile increments⁴ on both sides of the ice road to delineate the path of vehicle travel and areas of planned on-ice activities (e.g., emergency response exercises). Following existing safety measures currently used for ice trails, delineators will mark one side of an ice trail a minimum of every ¼ mile. Delineators may also be used to mark the centerline of the roadway.
- 3. Corners of rig mats, steel plates, and other materials used to bridge sections of hazardous ice, will be clearly marked or mapped using GPS coordinates of the locations.
- 4. Personnel will be instructed that approaching or interacting with ringed seals is prohibited.
- 5. If personnel encounter a ringed seal while driving on the road, they will be instructed to remain in the vehicle and safely continue.
- 6. If a ringed seal is observed within 50 m (164 ft) of the center of an ice road or trail or within 50 m (164 ft) of the ice pad edge or on the ice pad, the company's Security personnel or staff member who observed the seal contacts the Environmental Specialist in accordance with the Wildlife Management Plan with the information requested in Section 2.8 Data Collection.
 - a. The location of the seal will be physically marked with a visible marker while maintaining a distance of at least 15 m (50 ft) from the seal. However, markers will be placed in a way that avoids marker placement more than 15 m (50 ft) from the edge of the ice road/trail/pad.
 - b. The Environmental Specialist will relay the seal sighting location information to all ice road/trail/pad personnel and the company's office personnel responsible for wildlife interaction, following notification protocols described in the company-specific Wildlife Management Plan. All other data will be recorded and logged.

³ There are periods during which ice road travel does not occur. During these periods, no activity would occur along the road and therefore, implementation of measures would not be necessary.

⁴ The interval between delineators is specific to existing ice road safety measures and relates to how drivers assess and report weather and roadway conditions.
- c. The Environmental Specialist or designated person will monitor the ringed seal to document the animal's location relative to the road/trail/pad. All work that is occurring when the ringed seal is observed and the behavior of the seal during those activities will be documented until the animal is at least 50 m (164 ft) away from the center of the road/trail/pad or from the edge of the ice pad or until the animal is no longer observed.
- d. The Environmental Specialist or designated person will contact appropriate state and federal agencies as required⁵ (see company-specific Wildlife Plans for notification details).

Other on-ice activities occurring prior to March 1st could include spill training exercises, pipeline surveys, snow clearing, and work conducted by vehicles such as PistenBullys®, snow machines, or rolligons. Prior to March 1st, these activities could occur outside of the delineated ice road/trail/pad and shoulder areas. Also during this period, all general mitigation measures will be implemented.

3. Mitigation Measures After March 1st

After March 1st and continuing until decommissioning of ice roads/trails/pads in late May or early June, on-ice activities can occur anywhere on sea ice where water depth is less than 3 m (10 ft) (i.e., habitat not suitable for ringed seal lairs and breathing holes). However, after March 1st on those sections of the ice roads/trails/pads where water depth is greater than 3 m (10 ft), all activities must occur within the boundaries of the driving lane/ice pad or shoulder area of the ice road/trail/pad (see Figure 2-1) and other previously disturbed areas (e.g., spill and emergency response areas, snow push areas), as long as personnel safety is ensured. In addition to the general mitigation measures, the following measures will also be implemented after March 1st:

- Ice road/trail construction, maintenance and decommissioning will be performed within the boundaries of the road/trail and shoulders, with most work occurring within the driving lane. Equipment travel will be limited to within the driving lane and shoulder when safety of personnel can be ensured (see Figure 2-1).
- 2. Ice road/trail/pad construction and maintenance activities will remain 50 m (164 ft) from a seal and 150 m (about 500 ft) from a seal structure (i.e., breathing holes and lairs) except under
 - emergency conditions when blading or snow blowing is necessary. If blading or snow blowing must occur within 50 m (164 ft) from a seal or 150 m (about 500 ft) from a seal structure, the snow will first be pushed so that it is blown downwind of the animal or lair.
- Vehicles will not stop within 50 m (164 ft) of identified seals or 150 m (about 500 ft) of known seal lairs.
- 4. Tracked vehicle operations will be limited to the previously disturbed ice trail areas when



Figure 2-1. Ice Road Schematic

⁵ As detailed in the Wildlife Management Plan.

safety of personnel can be ensured. When safety requires a new ice trail to be constructed after March 1st, construction activities such as drilling holes in the ice to determine ice quality and thickness will be conducted only during daylight hours with good visibility. Ringed seal structures will be avoided by a minimum of 150 m (about 500 ft) during ice testing and new trail construction. Any observed ringed seal structures will be reported and marked as described in Section 2.7. Once the new ice trail is established, tracked vehicle operation will be limited to the disturbed area when safety of personnel is ensured.

4. Monitoring Measures

The following monitoring and reporting activities will be implemented by Eni and Hilcorp, along with the mitigation measures described in Sections 2.3 and 2.4, to avoid and minimize potential impacts to ringed seals during ice road/trail construction, operation and maintenance each year.

4.1 Ringed Seal Surveys

If an ice road or trail is being actively used⁶, a dedicated observer will conduct a survey along the sea ice road/trail during daylight conditions with good visibility to observe if any ringed seals are within 150 m (about 500 ft) of the roadway corridor. These protocols will be followed:

- 1. Surveys will be conducted every other day during daylight hours. Survey protocol consists of driving the ice road and stopping every ½ mile to observe the exposure area for approximately 5 minutes on either side of the corridor to check for the presence of seals.
- 2. Observers for ice road/trail activities need not be trained Protected Species Observers (PSOs), but they must have received the training described in Section 1 and understand the applicable sections of the Wildlife Management Plan. In addition, they must be capable of detecting, observing and monitoring ringed seal presence and behaviors, and accurately and completely recording data.
- 3. When performing observations, observers will have no other primary duty than to watch for and report observations related to ringed seals during this survey. If the observer is driving a vehicle, then the survey must be performed when the driver stops, at periodic intervals sufficient to complete a thorough assessment of the area, given visibility conditions. If weather conditions become unsafe, the monitoring activity will be discontinued.

4.2 Communication and Monitoring Procedures for Seal and Seal Structure Sightings

If a ringed seal is observed within 50 m (164 ft) or if a seal structure (i.e., breathing hole or lair) is observed within 150 m (about 500 ft) of the centerline of the ice road/trail, or the edge of the ice pad or on the ice pad, the location of the seal or seal structure will be reported to the Environmental Specialist⁷, who will then relay the sighting location information to all ice road personnel. In addition, the company's office personnel responsible for wildlife interaction would be notified following protocols described in

⁶ Any days when there is no traffic on an ice road, monitoring for ringed seals will not occur in order to minimize potential for interactions with seals.

⁷ Also referred to as an Environmental Advisor in Wildlife Management / Interaction Plans.

each company's specific Wildlife Interaction Plan (see also Section 2.9 *Reporting*). The following procedures will also be followed:

- Construction, maintenance or decommissioning activities associated with ice roads, trails and pads will not occur within 50 m (164 ft) of the observed ringed seal, but may proceed as soon as the animal moves on its own more than 50 m (164 ft) from the activities or has not been observed within that area for at least 24 hours. Transport vehicles (i.e., vehicles not associated with construction, maintenance or decommissioning) may continue their route within the designated road/trail without stopping.
- 2. As soon as practicable after the initial sighting, the Environmental Specialist or designated person will observe the ringed seal for approximately 15 minutes to document the animal's location relative to the road/trail/pad. All work that is occurring when the ringed seal is observed and the behavior of the seal during this observation period will be documented until the animal moves more than 50 m (164 ft) from the center of the road/trail, or more than 50 m (164 ft) from the edge of the ice pad, or is no longer observed. If the seal remains in the area after the 15-minute observation period, monitoring will continue every six hours during daylight conditions.
- 3. If a ringed seal structure (i.e., breathing hole or lair) is observed within 150 m (about 500 ft) of the ice road/trail, the location of the structure will be reported to the Environmental Specialist who will then carry out notification protocol described above.
 - a. The seal structure will be marked by placing a pole and flag or other easily visible marker about 15 m (50 ft) from the location of the lair.
 - b. Monitoring will continue every six hours during daylight conditions on the day of the initial sighting to determine whether a ringed seal is present. Monitoring will consist of observing the structure from a distance of at least 150 m (about 500 ft) for approximately 15 minutes each time. After the first 24 hours, monitoring for the seal will occur every other day the ice road/trail/pad is being used unless it is determined the structure is not actively being used (i.e., a seal is not sighted at that location during monitoring). A lair or breathing hole does not automatically imply that a ringed seal is present.
 - c. During this monitoring period, maintenance work will proceed cautiously as to minimize impacts or disturbance to area.

4.3 Data Collection

The Environment Specialist, or designated person, will record the following information during survey efforts and sighting events:

- 1. The date and start/stop time for each survey including effort in total number of hours of observation. This will include a summary of environmental conditions such as visibility that can affect ringed seal or lair detection;
- 2. Date and time of each significant event (e.g., seal or seal structure sighting) and subsequent monitoring;
- 3. Date, time, and duration for each sighting event;

- 4. Number of animals per sighting event; and number of adults/juveniles/pups per sighting event;
- 5. Primary, and, if observed, secondary behaviors of seals in each sighting event;
- 6. Geographic coordinates for the observed animals or structure (breathing hole or lair), with the position recorded by using the most precise coordinates practicable (coordinates must be recorded in decimal degrees, or similar standard, and defined coordinate system); and
- 7. Mitigation measures implemented to minimize impacts.

5. Reporting

Hilcorp and Eni propose to each submit an annual monitoring report after the end of the ice road/trail/pad season to summarize the activities during ice road/trail/pad construction, maintenance, use and decommissioning that occurred approximately December through May of that year. Records associated with any ringed seal observations and monitoring will be transmitted to NMFS prior to each subsequent ice road/trail season (i.e., generally by late summer, prior to the subsequent ice road/trail/pad season).

If a specific mitigation or monitoring measure is implemented during the ice road/trail activities (e.g., a breathing hole is monitored for seal presence), then a preliminary report of the activity will be submitted within 14 days after the cessation of that activity.

If a seal is observed within 50 m (164 ft) of the roadway during ice road/trail activities, or the edge of the ice pad or on the ice pad then notification to the Environmental Specialist and other staff and agency personnel will be undertaken as described above.

5.1 Annual Monitoring Report

Annual and final reports will be submitted via electronic mail to the appropriate NMFS staff including the NMFS AKR Protected Resources Division Supervisor and staff in OPR, Permits and Conservation Division in Silver Spring, Maryland.

Digital, queryable documents containing all observations and records, and digital, queryable reports will be submitted to: NMFS AKR Protected Resources Division Supervisor, Greg Balogh, at greg.balogh@noaa.gov and to OPR, Permits and Conservation Division, NMFS, and Shane Guan, at shane.guan@noaa.gov. In the event that this contact information becomes obsolete, call 907-271-5006 for updated reporting contact information.

5.2 Reporting of Unforeseen Events

In the unanticipated event that the specified activities along the ice road construction clearly causes the take of a marine mammal in a manner prohibited by the LOA, such as an unforeseen injury or mortality to a pinniped, the observer will report the incident to the Environmental Specialist, in accordance with their Wildlife Interaction/Management Plan, who would then relay that information to the OPR, Permits and Conservation Division, NMFS , and NMFS AKR Protected Resources Division (contact information provided above). This communication would occur as soon as practicable. A report documenting the incident would include:

- Time, date, and location (latitude/longitude) of the incident;
- Description of the incident;

- Water depth;
- Environmental conditions (e.g., wind speed and direction, and visibility);
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

In the event that an observer or company personnel discovers an injured or dead marine mammal, the cause of the injury or death is unknown, and the death is relatively recent (i.e., in less than a moderate state of decomposition), the incident would be reported to the OPR, Chief of the Permits and Conservation Division, NMFS in Silver Spring, Maryland (301-427-8401) and the Marine Mammal Network Alaska Stranding Coordinator in Alaska (Phone number 1-877-925-7773 or 1-877-9-AKR-PRD), as soon as practicably possible. The report would include the same information identified in the paragraph above. Activities would be allowed to continue while NMFS reviews the circumstances of the incident. NMFS would work with Hilcorp or Eni to determine whether modifications in the activities are appropriate.

Under such circumstances that the injury or death is not associated with or related to the activities authorized in the LOA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), the incident would be reported to the OPR, Chief of the Permits and Conservation Division, NMFS or by email to the Alaska Stranding Coordinator within 24 hours of the discovery. Photographs, video footage (if available), and any other documentation of the stranded animal sighting will be provided to NMFS and the Marine Mammal Stranding Network.

	Notes	Started from shore	Started from shore	Started from shore	Calm winds	Blowing snow				Started from shore		Started from shore		Started from shore / No seals	No seals	No seals	No seals	No seals				Blowing snow				No seals	No seals	30 to 17:00.	No seals	No seals observed	No seals observed	No seals observed	Blowing snow / No seals observed
	Activity Occuring Near Sighting	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Platform. Sighting was from 13:3	N/A	N/A	N/A	N/A	N/A												
	Behavior	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	p Wildlife Reporting	N/A	N/A	N/A	N/A	N/A												
imary	Pup or Adult	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	itted to Hilcory	N/A	N/A	N/A	N/A	N/A												
ation Sum	# of Seals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	leted and subm	0	0	0	0	0
iged Seal Observ	Visibility (In Miles)	10	10	10	10	œ	m	10	10	10	10	10	10	10	10	10	10	10	10	10	10	3 to 4	6	10	10	10	10	ing report was comp	10	00	10	e	0.5
rthstar Ringe	Weather	Clear	Clear	Sunny	Clear	Clear	Light Snow	Clear / Sunny	Sunny	Sunny	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Overcast	Overcast	Clear	Clear	Overcast	Overcast	Partly Cloudy	Clear	Clear	Clear	ear observation/sight	Clear	Overcast	Clear	Fog	Fog
2023 No	Survey Start and End Time	13:30 to 17:00	12:30 to 16:45	09:00 to 12:15	13:00 to 16:15	14:00 to 17:20	12:00 to 15:15	12:30 to 15:30	14:15 to 17:30	13:30 to 16:30	12:45 to 15:50	13:30 to 16:30	06:00 to 09:00	07:45 to 10:45	12:00 to 15:00	07:00 to 10:00	11:50 to 14:50	11:45 to 14:45	13:40 to 16:40	12:15 to 15:30	09:30 to 12:30	10:10 to 13:15	14:30 to 17:30	11:30 to 14:40	12:05 to 15:10	12:30 to 15:35	09:30 to 13:15	olar Bear on Ice Path. Polar B	08:00 to 11:10	15:00 to 18:00	15:00 to 18:00	07:00 to 10:00	14:00 to 17:00
	Location (Approx. Lat/Long or Mile Marker)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	y conducted due to Po	N/A	N/A	N/A	N/A	N/A												
	Road Name/No.	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	Northstar Ice Path	No Seal Surve	Northstar Ice Path																
	Observer	Moorhead	Moorhead	Moorhead	Hubbard	Moorhead	Moorhead	Moorhead	Moorhead	Moorhead	Moorhead	Moorhead	Hubbard	Moorhead	Lindquist		Lindquist	Moorhead	Moorhead	Moorhead	Hubbard												
	Sighting During Planned Survey? (Y/N)	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z		z	z	z	z	z
	Date (mm/dd/yyy)	3/1/2023	3/3/2023	3/5/2023	3/7/2023	3/9/2023	3/11/2023	3/13/2023	3/15/2023	3/17/2023	3/19/2023	3/21/2023	3/23/2023	3/25/2023	3/27/2023	3/29/2023	3/31/2023	4/2/2023	4/4/2023	4/6/2023	4/8/2023	4/10/2023	4/12/2023	4/14/2023	4/16/2023	4/18/2023	4/20/2023	4/22/2023	4/24/2023	4/26/2023	4/28/2023	4/30/2023	5/2/2023

1 seal sported resting at this Marker 1, approximately 400 meters fronthe lce Path. Seal was observed 14:30 to 14:40. Another seal was sported resting at Mile Marker 7, approximately 300 meters from the lce Path. Seal was observed from 16:50 to 17:00.	Poor visibility / No seals observed		6 seals total spotted spread out between Mile Marker 1.5 and 7.5. One adult seal spotted treating at Mile Marker 1.4.5. One adult seal spotted at Mile Marker 7.4.5 and this was the closest tanimal to the treal at a approximately 250 meters. Two seals (1 adult and 1 juvenile) were spotted resting at Mile Marker 5.5. One adult seal was spotted resting at Mile Marker 6.5, and another adult seal was spotted resting at Mile Marker 5.5. And shother adult seal was spotted resting at Mile Marker 7.5. All sightings were at a distance >150 meters from the fec trial, and each sighting lasted approximately 7 minutes.	2 adult seals spotted resting at Mile Marker 5.3, and 1 adult seal spotted resting at Mile Marker 7.5. All sightings were at a distance >250 metres from the ice trail and each survey lasted approximately 10 minutes.	Trail smoothing out, loosening snow, warm temps. 2 adult seals spotted resting at Nile Marker 1.5. One adult seal spotted resting at Mile Marker 3.4. Two adult seal 2.8. and another at Mile Marker 5.5. and another two spotted resting at Mile Marker 5.5. All sightings were at a spotted resting at Mile Marker 7.5. All sightings were at distance >200 meters from the (ce trail, and each sighting lasted approximately 5 minutes.	One adult seal spotted resting at Mile Marker 2, and two adult seals spotted resting at Mile Marker 5.5. Both sightings were at a distance >200 meters from the ice trail, and each sighting lasted approximately 5 minutes.	One adult seal spotted resting at Mile Marker 1.5. One adult seal spotted resting at Mile Marker 2. one adult seal spotted resting at Mile Marker 3.4. Two adult seals spotted resting at Mile Marker 5.5. One adult seal spotted resting at Mile Marker 7.5. All sightinger sere at a distance >200 meters from the ice trail, and each sighting lasted approximately 5 minutes.
Seal Survey	N/A		Seal Survey	Seal Survey	Seal Survey	Seal Survey	Seal Survey
Resting	N/A	/ to 0.25 miles.	Resting	Resting	Resting	Resting	Resting
Adults	N/A	reduced visibility	5 Adults, 1 Juvenile	Adults	Adults	Adults	Adults
7	0	ions. Heavy fog	٥	m	σ	m	۵
10	0.5	erse weather condit	10	Ω	10	7	10
Overcast	Fog	conducted due to adv	Overcast	Overcast	Partly Cloudy	Fog	Clear
14:15 to 17:15	12:00 to 15:00	No Survey	11:45 to 14:35	12:40 to 15:55	12:05 to 15:15	12:35 to 15:35	09:00 to 12:00
Mile Marker 1 and 7	N/A		Mile Marker 1.5, 2, 5.5, 6.5, and 7.5	Mile Marker 5.3 and 7.5	Mile Marker 1.5, 2, 2.8, 3.4, 5.5, and 7.5	Mile Marker 2 and 5.5	Mile Marker 1.5, 2, 34, 5.5, and 7.5
Northstar Ice Path	Northstar Ice Path		Northstar Ice Path	Northstar Ice Path	Northstar ice Path	Northstar Ice Path	Northstar lee Path
Hubbard	Hubbard		Hubbard	Hubbard	Hubbard	Moorhead	Moorhead
~	z		>	>	>	~	>
5/4/2023	5/6/2023	5/8/2023	5/10/2023	5/12/2023	5/14/2023	5/16/2023	5/18/2023

Snow Depth										
Date (mm/dd/yy)	Mile Marker	Deepest Snow Depth (meters/cm)	Shallowest Snow Depth (inches)	Snow Characterization (Bumpy, Uniform, Flat, etc.)	Distance Between Drift Peaks (yards)					
	0.5	6	4	Bumpy	No Peaks					
	1	4	4	Bumpy	No Peaks					
	1.5	8	6	Bumpy	No Peaks					
	2	7	4	Bumpy	No Peaks					
	2.5	8	4	Bumpy	No Peaks					
	3	6	4	Bumpy	No Peaks					
	3.5	8	6	Bumpy	No Peaks					
3/1/2023	4	4	2	Bumpy	No Peaks					
	4.5	8	6	Bumpy	No Peaks					
	5	6	4	Bumpy	No Peaks					
	5.5	6	2	Bumpy	No Peaks					
	6	11	8	Bumpy	No Peaks					
	6.5	6	6	Bumpy	No Peaks					
	7	10	6	Bumpy	No Peaks					
	7.5	6	6	Bumpy	No Peaks					
	0.5	6	4	Bumpy	No Peaks					
	1	6	4	Bumpy	No Peaks					
	1.5	9	4	Bumpy	No Peaks					
	2	7	4	Bumpy	No Peaks					
	2.5	8	6	Bumpy	No Peaks					
	3	6	4	Bumpy	No Peaks					
0 /0 /0000	3.5	8	6	Bumpy	No Peaks					
3/3/2023	4	5	5	Bumpy	No Peaks					
	4.5	8	8	Bumpy	No Peaks					
	5	6	4	Bumpy	No Peaks					
	5.5	10	/	Bumpy	No Peaks					
	6	6	6	Bumpy	No Peaks					
	6.5	10	6	Bumpy	No Peaks					
	7	10	6	Bumpy	No Peaks					
	7.5	7	6	витру	NU Peaks					
	0.5	7	4	Bumpy	No Peaks					
	1 5	6	4	Витру	No Peaks					
	1.5	8	4	Bumpy	No Peaks					
	2 5	7	5	Bumpy	No Peaks					
	2.5	,	1	Bumpy	No Peaks					
	35	8	4	Bumpy	No Peaks					
3/5/2023	4	4	4	Bumpy	No Peaks					
-,-,	4 5	6	6	Bumpy	No Peaks					
	5	6	4	Bumpy	No Peaks					
	5.5	8	8	Bumpy	No Peaks					
	6	11	8	Bumpy	No Peaks					
	6.5	10	6	Bumpy	No Peaks					
	7	10	6	Bumpy	No Peaks					
	7.5	6	6	Bumpy	No Peaks					
	0.5	6	4	Bumpy	No Peaks					
	1	6	4	Bumpy	No Peaks					
	1.5	7	4	Bumpy	No Peaks					
	2	7	4	Bumpy	No Peaks					
	2.5	8	5	Bumpy	No Peaks					
	3	7	5	Bumpy	No Peaks					
	3.5	7	5	Bumpy	No Peaks					
3/7/2023	4	6	4	Bumpy	No Peaks					
	4.5	6	4	Bumpy	No Peaks					

	5	7	4	Bumpy	No Peaks
	5.5	7	5	Bumpy	No Peaks
	6	9	6	Bumpy	No Peaks
	65	9	6	Bumpy	No Peaks
	7	9	5	Bumpy	No Peaks
	75	8	5	Bumpy	No Peaks
	7.5	8	5	Bumpy	No Peaks
	0.5	6	4	Витру	No Peaks
	1	5	3	витру	NO Peaks
	1.5	6	3	Витру	No Peaks
	2	7	4	Bumpy	No Peaks
	2.5	7	4	Bumpy	No Peaks
	3	8	5	Bumpy	No Peaks
	3.5	7	4	Bumpy	No Peaks
3/9/2023	4	7	4	Bumpy	No Peaks
	4.5	6	4	Bumpy	No Peaks
	5	6	3	Bumpy	No Peaks
	5.5	6	3	Bumpy	No Peaks
	6	8	4	Bumpy	No Peaks
	6.5	8	5	Bumpy	No Peaks
	7	9	5	Bumpy	No Peaks
	7.5	8	4	Bumpy	No Peaks
	0.5	8	4	Bumpy	No Peaks
	1	6	4	Bumpy	No Peaks
	1.5	8	3	Bumpy	No Peaks
	2	7	3	Bumpy	No Peaks
	2 5	5	4	Bumpy	No Peaks
	2.5	8	4	Bumpy	No Peaks
	25	6	2	Bumpy	No Peaks
2/11/2022	3.5	6		Bumpy	No Peaks
5/11/2025	4	6	2	Bumpy	No Peaks
	4.5	7	2	Витру	No Peaks
	5	/	3	Bumpy	NO Peaks
	5.5	8	5	витру	NO Peaks
	6	8	5	Витру	No Peaks
	6.5	7	4	Bumpy	No Peaks
	7	8	5	Bumpy	No Peaks
	7.5	6	3	Bumpy	No Peaks
	0.5	7	4	Bumpy	No Peaks
	1	7	4	Bumpy	No Peaks
	1.5	7	3	Bumpy	No Peaks
	2	6	3	Bumpy	No Peaks
	2.5	6	4	Bumpy	No Peaks
	3	7	4	Bumpy	No Peaks
	3.5	5	3	Bumpy	No Peaks
3/13/2023	4	6	3	Bumpy	No Peaks
	4.5	7	4	Bumpy	No Peaks
	5	7	4	Bumpy	No Peaks
	5.5	9	4	Bumpy	No Peaks
	6	8	5	Bumpy	No Peaks
	6.5	7	3	Bumpy	No Peaks
	7	7	5	Bumpy	No Peaks
	7.5	6	3	Bumpy	No Peaks
	0.5	5	3	Bumpy	No Peaks
	1	6	3	Bumpy	No Peaks
	15	7	л	Rumny	No Peaks
	1.J 2	, F	4	Bumpy	No Poaks
	2	0		Burnau	No Pooles
	2.5	ŏ	5	витру	NU PEAKS
	3	8	5	витру	NO PEaKS
2/45/2022	3.5	6	4	Bumpy	No Peaks
3/15/2023	4	6	4	Bumpy	No Peaks

	4.5	9	5	Bumpy	No Peaks
	5	7	3	Bumpy	No Peaks
	5.5	9	6	Bumpy	No Peaks
	6	7	4	Bumpy	No Peaks
	65	7	4	Bumpy	No Peaks
	7	,	3	Bumpy	No Peaks
	75	7	S	Bumpy	No Peaks
	7.5	,		Dumpy	No Peeks
	0.5	4	2	витру	NO Peaks
	1	6	4	витру	NO Peaks
	1.5	6	4	Bumpy	No Peaks
	2	6	3	Bumpy	No Peaks
	2.5	7	3	Bumpy	No Peaks
	3	7	4	Bumpy	No Peaks
	3.5	6	4	Bumpy	No Peaks
3/17/2023	4	5	3	Bumpy	No Peaks
	4.5	7	5	Bumpy	No Peaks
	5	7	5	Bumpy	No Peaks
	5.5	8	6	Bumpy	No Peaks
	6	6	3	Bumpy	No Peaks
	6.5	6	3	Bumpy	No Peaks
	7	7	4	Bumpy	No Peaks
	7.5	6	4	Bumpy	No Peaks
	0.5	4	3	Bumpy	No Peaks
	1	5	3	Bumpy	No Peaks
	1.5	5	3	Bumpy	No Peaks
	2	6	4	Bumpy	No Peaks
	2.5	6	4	Bumpy	No Peaks
	3	6	3	Bumpy	No Peaks
	25	7	3	Bumpy	No Peaks
2/10/2022	3.5	7		Bumpy	No Peaks
5/15/2025	4	0	3	Bumpy	No Peaks
	4.5	6	4	Витру	No Peaks
	5	8	5	витру	NO Peaks
	5.5	/	5	витру	NO Peaks
	6	6	3	Bumpy	No Peaks
	6.5	6	3	Bumpy	No Peaks
	7	7	5	Bumpy	No Peaks
	7.5	6	3	Bumpy	No Peaks
	0.5	4	4	Bumpy	No Peaks
	1	5	4	Bumpy	No Peaks
	1.5	5	3	Bumpy	No Peaks
	2	5	4	Bumpy	No Peaks
	2.5	6	4	Bumpy	No Peaks
	3	6	4	Bumpy	No Peaks
	3.5	6	5	Bumpy	No Peaks
3/21/2023	4	5	5	Bumpy	No Peaks
	4.5	6	4	Bumpy	No Peaks
	5	8	5	Bumpy	No Peaks
	5.5	8	5	Bumpy	No Peaks
	6	6	3	Bumpy	No Peaks
	6.5	5	4	Bumpy	No Peaks
	7	7	4	Bumpy	No Peaks
	7.5	6	3	Bumpy	No Peaks
	0.5	4	4	Bumpy	No Peaks
	1	- Л		Bumpy	No Peaks
	1 5	т с		Bumpy	No Peaks
	1.5	ے د		Bumpy	No Poaks
	2	0	Э г	Burney	No Peele
	2.5	ŏ 7	<u>ح</u>	витру	No Peaks
	3	/	4	витру	NO PEAKS
	3.5	5	5	Bumpy	No Peaks

3/23/2023	4	6	4	Bumpy	No Peaks
	4.5	8	5	Bumpy	No Peaks
	5	8	5	Bumpy	No Peaks
	5.5	8	5	Bumpy	No Peaks
	6	6	4	Bumpy	No Peaks
	65	5	4	Bumpy	No Peaks
	7	7	4	Bumpy	No Peaks
	75	7	3	Bumpy	No Peaks
	7.5	,	2	Bumpy	No Poaks
	0.5		3	Витру	No Peaks
	1	5	3	Bumpy	No Peaks
	1.5	5	3	витру	NO Peaks
	2	6	5	Bumpy	No Peaks
	2.5	8	5	Bumpy	No Peaks
	3	7	4	Bumpy	No Peaks
	3.5	6	5	Bumpy	No Peaks
3/25/2023	4	5	5	Bumpy	No Peaks
	4.5	6	4	Bumpy	No Peaks
	5	8	5	Bumpy	No Peaks
	5.5	8	5	Bumpy	No Peaks
	6	6	4	Bumpy	No Peaks
	6.5	5	4	Bumpy	No Peaks
	7	7	5	Bumpy	No Peaks
	7.5	6	3	Bumpy	No Peaks
	0.5	4	4	Bumpy	No Peaks
	1	5	3	Bumpy	No Peaks
	1.5	5	3	Bumpy	No Peaks
	2	6	5	Bumpy	No Peaks
	2.5	6	4	Bumpy	No Peaks
	3	6	5	Bumpy	No Peaks
	35	6	5	Bumpy	No Peaks
3/27/2023	1	5	5	Bumpy	No Peaks
-,,	4.5	6	3	Bumpy	No Peaks
	5	8	5	Bumpy	No Peaks
	5	0	5	Bumpy	No Peaks
	5.5	6	3	Bumpy	No Peaks
	6.5	5	4	Bumpy	No Peaks
	0.5	5	4	Bumpy	No Peaks
	7	7	5	Bumpy	No Peaks
	7.5	б	3	витру	по Реакs
	0.5	5	3	Bumpy	No Peaks
	1	5	3	Bumpy	No Peaks
	1.5	5	4	Bumpy	No Peaks
	2	5	5	Bumpy	No Peaks
	2.5	8	5	Bumpy	No Peaks
	3	5	5	Bumpy	No Peaks
	3.5	7	4	Bumpy	No Peaks
3/29/2023	4	7	3	Bumpy	No Peaks
	4.5	8	4	Bumpy	No Peaks
	5	9	4	Bumpy	No Peaks
	5.5	6	5	Bumpy	No Peaks
	6	6	4	Bumpy	No Peaks
	6.5	5	5	Bumpy	No Peaks
	7	7	5	Bumpy	No Peaks
	7.5	8	3	Bumpy	No Peaks
	0.5	4	3	N/A	N/A
	1	4	3	N/A	N/A
	1.5	4	4	N/A	N/A
	2	5	4	N/A	N/A
	2.5	6	5	, N/A	, N/A
	3	4	4	N/A	N/A
l i i i i i i i i i i i i i i i i i i i	2	-			

	3.5	5	4	N/A	N/A
3/31/2023	4	7	4	N/A	N/A
	4.5	8	4	N/A	N/A
	5	8	1	N/A	N/A
	5	6		N/A	N/A
	5.5	0	5	N/A	N/A
	6	6	5	N/A	N/A
	6.5	7	4	N/A	N/A
	7	6	5	N/A	N/A
	7.5	8	4	N/A	N/A
	0.5	5	3	N/A	N/A
	1	4	3	N/A	N/A
	1.5	4	3	N/A	N/A
	2	5	5	N/A	N/A
	2.5	7	5	N/A	N/A
	3	4	4	N/A	N/A
	35	5	4	Ν/Δ	N/A
1/2/2023	1	6	4	N/A	N/A
4/2/2023	4	7	4	N/A	N/A
	4.5	/	4	IN/A	IN/A
	5	<u> </u>	5	N/A	N/A
	5.5	5	5	N/A	N/A
	6	6	5	N/A	N/A
	6.5	7	4	N/A	N/A
	7	5	5	N/A	N/A
	7.5	8	5	N/A	N/A
	0.5	5	3	Bumpy	N/A
	1	6	3	Bumpy	N/A
	1.5	5	3	Bumpy	N/A
	2	5	4	Bumpy	N/A
	2 5	7	4	Bumpy	N/A
	2.5	6	2	Bumpy	N/A
	25	7	3	Bumpy	N/A
4/4/2022	3.5	7	4	Витру	N/A
4/4/2023	4	5	4	Витру	N/A
	4.5	/	3	витру	N/A
	5	7	4	Bumpy	N/A
	5.5	6	3	Bumpy	N/A
	6	6	3	Bumpy	N/A
	6.5	6	3	Bumpy	N/A
	7	6	4	Bumpy	N/A
	7.5	5	3	Bumpy	N/A
	0.5	4	3	Bumpy	N/A
	1	5	3	Bumpy	N/A
	1.5	6	4	Bumpy	N/A
	2	6	3	Bumpy	N/A
	2.5	7	3	Bumpy	N/A
	2.5	5	2	Bumpy	N/A
	25	5	2	Bumpy	N/A
A / 6 / 2022	3.5	0	4	витру	IN/A
4/6/2023	4	6	3	Витру	N/A
	4.5	5	4	Bumpy	N/A
	5	6	4	Bumpy	N/A
	5.5	7	5	Bumpy	N/A
	6	7	3	Bumpy	N/A
	6.5	7	3	Bumpy	N/A
	7	6	3	Bumpy	N/A
	7.5	5	4	Bumpy	N/A
	0.5	5	3	Bumpy	N/A
	1	5	3	Bumpy	, N/A
	15	7	3	Rumny	Ν/Δ
	1.5	, 6	л	Bumpy	N/A
	2		4	Durren	N/A
1	2.5	/	3	Bumpy	N/A

	3	6	3	Bumpy	N/A
	3.5	5	2	Bumpy	N/A
4/8/2023	4	6	4	Bumpy	N/A
., _,		5	1	Bumpy	N/A
		5	4	Bumpy	N/A
	5	7	4	Витру	N/A
	5.5	/	3	витру	N/A
	6	8	4	Bumpy	N/A
	6.5	8	3	Bumpy	N/A
	7	7	4	Bumpy	N/A
	7.5	6	3	Bumpy	N/A
	0.5	7	4	Bumpy	N/A
	1	9	6	Bumpy	N/A
	1.5	8	6	Bumpy	N/A
	2	8	6	Bumpy	N/A
	2.5	5	3	Bumpy	N/A
	3	6	4	Bumpy	N/A
	25	7	4	Bumpy	N/A
4/10/2022	5.5	7	4	Витру	N/A
4/10/2025	4	7	4	витру	N/A
	4.5	8	4	витру	N/A
	5	5	5	Bumpy	N/A
	5.5	6	3	Bumpy	N/A
	6	8	5	Bumpy	N/A
	6.5	9	5	Bumpy	N/A
	7	7	5	Bumpy	N/A
	7.5	7	4	Bumpy	N/A
	0.5	7	3	Bumpy	N/A
	1	7	5	Bumpy	N/A
	1.5	8	5	Bumpy	N/A
	2	6	4	Bumpy	N/A
	2 5	6	4	Bumpy	N/A
	210	7	5	Bumpy	N/A
	35	6	3	Bumpy	N/A
1/12/2022	3.5	7	2	Bumpy	N/A
4/12/2023	4	7	3	Витру	N/A
	4.5	6	3	витру	N/A
	5	6	4	витру	N/A
	5.5	7	4	Bumpy	N/A
	6	8	5	Bumpy	N/A
	6.5	8	4	Bumpy	N/A
	7	7	4	Bumpy	N/A
	7.5	6	3	Bumpy	N/A
	0.5	6	3	Bumpy	N/A
	1	6	4	Bumpy	N/A
	1.5	7	4	Bumpy	N/A
	2	5	3	Bumpy	N/A
	2.5	5	3	Bumpy	N/A
	3	6	<u>م</u>	Rumny	Ν/Δ
	25	6		Bumpy	N/A
4/14/2022	3.5	5	3	Витру	N/A
4/14/2023	4	5	4	витру	IN/A
	4.5	6	4	Bumpy	N/A
	5	5	3	Bumpy	N/A
	5.5	6	3	Bumpy	N/A
	6	7	5	Bumpy	N/A
	6.5	7	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	7.5	6	4	Bumpy	N/A
	0.5	5	3	Bumpy	N/A
	1	7	3	Bumpy	N/A
	1.5	8	- 5	Bumpy	N/A
	2.0	6	л	Rumny	Ν/Δ
l i i i i i i i i i i i i i i i i i i i	۷	U	4	builipy	11/74

	2.5	5	3	Bumpy	N/A
	3	5	3	Bumpy	N/A
	3.5	7	4	Bumpy	N/A
4/16/2023	4	6	4	Bumpy	N/A
	4.5	6	4	Bumpy	N/A
	5	5	4	Bumpy	N/A
	55	7	3	Bumpy	N/A
	5.5	7	5	Bumpy	N/A
	0	7	5	Витру	N/A
	0.5	0	3	Витру	N/A
	7	7	4	Bumpy	N/A
	7.5	/	4	витру	N/A
	0.5	5	3	Bumpy	N/A
	1	7	4	Bumpy	N/A
	1.5	8	5	Bumpy	N/A
	2	6	4	Bumpy	N/A
	2.5	5	4	Bumpy	N/A
	3	5	3	Bumpy	N/A
	3.5	6	3	Bumpy	N/A
4/18/2023	4	6	4	Bumpy	N/A
	4.5	6	4	Bumpy	N/A
	5	5	3	Bumpy	N/A
	5.5	7	5	Bumpy	N/A
	6	6	5	Bumpy	N/A
	6.5	6	3	Bumpy	N/A
	7	7	4	Bumpy	N/A
	75	7	4	Bumpy	N/A
	0.5	7	25	Bumpy	N/A
	0.5	7	5.5	Bumpy	N/A
	1	7	5	Витру	N/A
	1.5	7.5	6	Bumpy	N/A
	2	6.25	5	витру	N/A
	2.5	7	4.5	Bumpy	N/A
	3	6	4	Bumpy	N/A
	3.5	6.5	4	Bumpy	N/A
4/20/2023	4	6.5	5	Bumpy	N/A
	4.5	7	2	Bumpy	N/A
	5	6.5	4	Bumpy	N/A
	5.5	5	5	Bumpy	N/A
	6	7	4	Bumpy	N/A
	6.5	5	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	7.5	6	5	Bumpy	N/A
	0.5	7	4	N/A	N/A
	1	7	5	N/A	N/A
	1.5	7	6	N/A	N/A
	2	6	5	N/A	N/A
	2.5	7	5	N/A	N/A
	3	6	4	, N/A	, N/A
	35	6	4	N/A	N/A
4/24/2023	4	6	5	N/A	N/A
.,, 2020	4.5	7	3	N/A	N/A
	т.J С	,	л	N/A	N/A
	5	5		N/A	N/A
	5.5	Э 7	2	IN/A	IN/A
	0	/	4	IN/A	IN/A
	6.5	5	4	N/A	N/A
	7	6	5	N/A	N/A
	7.5	6	5	N/A	N/A
	0.5	7	4	Bumpy	N/A
	1	9	4	Bumpy	N/A
	1.5	9	6	Bumpy	N/A

	2	8	5	Bumpy	N/A
	2.5	11	5	Bumpy	N/A
	3	7	6	Bumpy	N/A
	3	,	6	Bumpy	N/A
1/25/2022	3.5	8	5	Витру	N/A
4/20/2023	4	9	5	витру	N/A
	4.5	8	4	Bumpy	N/A
	5	7	4	Bumpy	N/A
	5.5	3	3	Bumpy	N/A
	6	6	4	Bumpy	N/A
	6.5	4	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	7.5	7	4	Bumpy	N/A
	0.5	7	5	Bumpy	N/A
	1	8	5	Bumpy	N/A
	1.5	8	5	Bumpy	N/A
	2	12	5	Bumpy	N/A
	25	0	6	Bumpy	N/A
	2.5	3	0	Bumpy	N/A
	3	7	6	витру	N/A
	3.5	8	/	витру	N/A
4/28/2023	4	9	6	Bumpy	N/A
	4.5	8	4	Bumpy	N/A
	5	7	5	Bumpy	N/A
	5.5	4	3	Bumpy	N/A
	6	6	5	Bumpy	N/A
	6.5	5	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	7.5	7	6	Bumpy	N/A
	0.5	6	6	Bumpy	N/A
	1	9	5	Bumpy	N/A
	1 5	2 2	5	Bumpy	N/A
	1.5	0	5	Витру	N/A
	2	8	5	Витру	N/A
	2.5	10	/	Витру	N/A
	3	7	6	Bumpy	N/A
	3.5	8	7	Bumpy	N/A
4/30/2023	4	9	5	Bumpy	N/A
	4.5	8	4	Bumpy	N/A
	5	8	4	Bumpy	N/A
	5.5	5	3	Bumpy	N/A
	6	6	6	Bumpy	N/A
	6.5	5	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	75	7	5	Bumpy	N/A
	0.5	, C	4	Bumpy	N/A
	0.5	6	4	витру	N/A
	1	/	4	витру	N/A
	1.5	7	5	Bumpy	N/A
	2	7	4	Bumpy	N/A
	2.5	8	6	Bumpy	N/A
	3	8	5	Bumpy	N/A
	3.5	8	6	Bumpy	N/A
5/2/2023	4	7	5	Bumpy	N/A
	4.5	8	4	Bumpy	N/A
	5	8	4	Bumpy	N/A
	5.5	6	5	Bumpy	N/A
	6	7	5	Bumpy	Ν/Δ
	65	,	л	Bumpy	N/A
	c.o 7	7	4	випру	IN/A
	/	/	<u>р</u>	витру	IN/A
	7.5	6	5	Bumpy	N/A
	0.5	6	5	Bumpy	N/A
	1	6	4	Bumpy	N/A

	1.5	7	4	Bumpy	N/A
	2	7	4	Bumpy	N/A
	25	7	6	Bumpy	N/A
	2.5	, o	6	Bumpy	N/A
	25	7	0	Bumpy	N/A
F /4/2022	3.5	7	4	витру	N/A
5/4/2023	4	/	4	Витру	N/A
	4.5	8	5	Bumpy	N/A
	5	6	5	Bumpy	N/A
	5.5	7	5	Bumpy	N/A
	6	8	6	Bumpy	N/A
	6.5	7	4	Bumpy	N/A
	7	7	5	Bumpy	N/A
	7.5	5	4	Bumpy	N/A
	0.5	5	4	Bumpy	N/A
	1	6	4	Bumpy	N/A
	15	6	5	Bumpy	N/A
	210	5	4	Bumpy	N/A
	2	5	4	Bumpy	N/A
	2.5	6	4	Bumpy	N/A
	3	0	5	витру	N/A
= /c/2022	3.5	/	5	Bumpy	N/A
5/6/2023	4	6	4	Bumpy	N/A
	4.5	7	5	Bumpy	N/A
	5	6	5	Bumpy	N/A
	5.5	7	5	Bumpy	N/A
	6	7	5	Bumpy	N/A
	6.5	6	4	Bumpy	N/A
	7	6	5	Bumpy	N/A
	7.5	5	4	Bumpy	N/A
	0.5	4	3	Bumpy	N/A
	1	5	3	Bumpy	N/A
	15	4	3	Bumpy	N/A
	210	6	4	Bumpy	N/A
	2 5	6	1	Bumpy	N/A
	2.5	5	2	Bumpy	N/A
	3	5	3	Bumpy	N/A
F /10 /2022	3.5	5	4	Витру	N/A
5/10/2025	4	6	4	Bumpy	N/A
	4.5	6	3	витру	N/A
	5	5	4	Bumpy	N/A
	5.5	5	4	Bumpy	N/A
	6	6	3	Bumpy	N/A
	6.5	6	4	Bumpy	N/A
	7	5	4	Bumpy	N/A
	7.5	5	4	Bumpy	N/A
	0.5	4	2	Bumpy	N/A
	1	4	3	Bumpy	N/A
	1.5	3	2	Bumpy	N/A
	2	5	3	Bumpy	N/A
	2.5	5	4	Bumpy	N/A
	3	4	2	Bumpy	, N/A
	35	5	3	Bumpy	N/A
5/12/2023	3.5	7	Δ.	Bumpy	N/A
5/ 12/ 2023	4	r F	2	Burney	N/A
	4.5	2 7	3	витру	IN/A
	5	/	3	витру	N/A
	5.5	6	5	Bumpy	N/A
	6	5	4	Bumpy	N/A
	6.5	7	4	Bumpy	N/A
	7	5	3	Bumpy	N/A
	7.5	5	4	Bumpy	N/A
	0.5	3	2	Bumpy	N/A

	1	3	2	Bumpy	N/A
	1.5	3	2	Smooth	N/A
	2	4	2	Smooth	N/A
	2.5	5	3	Smooth	N/A
	3	3	2	Smooth	N/A
	3.5	5	3	Bumpy	N/A
5/14/2023	4	6	4	Bumpy	N/A
	4.5	5	4	Bumpy	N/A
	5	6	3	Smooth	N/A
	5.5	5	4	Smooth	N/A
	6	4	3	Smooth	N/A
	6.5	6	4	Bumpy	N/A
	7	5	3	Bumpy	N/A
	7.5	5	3	Bumpy	N/A
	0.5	3	2	Bumpy	N/A
	1	3	3	Smooth	N/A
	1.5	3	2	Smooth	N/A
	2	4	3	Smooth	N/A
	2.5	5	3	Smooth	N/A
	3	3	3	Smooth	N/A
	3.5	5	4	Bumpy	N/A
5/16/2023	4	6	4	Bumpy	N/A
	4.5	5	3	Bumpy	N/A
	5	6	4	Smooth	N/A
	5.5	4	3	Smooth	N/A
	6	4	4	Smooth	N/A
	6.5	6	4	Bumpy	N/A
	7	5	3	Bumpy	N/A
	7.5	4	3	Bumpy	N/A
	0.5	3	2	Bumpy	N/A
	1	3	3	Bumpy	N/A
	1.5	4	4	Smooth	N/A
	2	4	4	Smooth	N/A
	2.5	5	4	Smooth	N/A
	3	3	3	Smooth	N/A
	3.5	5	3	Bumpy	N/A
5/18/2023	4	6	4	Bumpy	N/A
	4.5	5	4	Bumpy	N/A
	5	5	4	Smooth	N/A
	5.5	4	3	Smooth	N/A
	6	4	3	Smooth	N/A
	6.5	5	4	Bumpy	N/A
	7	5	4	Bumpy	N/A
	7.5	4	3	Bumpy	N/A

Su road r me	rvey Protocol: Observers stop even for 5 minutes; record details sighti n, record basic info (distance, #, loca asurements on nearest unpacked sn of road to measure. Please tak	vey Protocol: Observers stop every 1/2 mile and observe 150 m on either side of or 5 minutes; record details sightings within 150 m. For sightings further than 150 record basic info (distance, #, location) in Notes section. Take two snow depth surements on nearest unpacked snow at each stop; flip coin to choose which side of road to measure. Please take photos of any seals or signs of seals.				Snow dept	h	
	Date	3-1-23	3				Snow characterization	If snow is in drifts,
10	*Survey Start Time & End Time	Start [! 3 0	5:00	Mile Marker	Deepest Snow Depth (meters/cm)	Shallowest Snow depth (meters/cm)	(Bumpy Uniform Flat, etc)	estimate how close the peaks are to one another (meters)
	Observer Name	Erin M	oorhead	0.5	6	4	Bungy	0
ALC: NO	Visibility	lO	Feet / Yards / Meters Miles	1	4	4	Bumpy	0
	Estimated % of Sun Glare Affecting Field of Vision	0%		1.5	8	6	Burgy	0
Weather	Weather Conditions	For Rain, Snow etc. Llea	.r	2	7	4	Bampy	0
	Temperature	- 15	c \Ø	2.5	8	4	Bumpy	0
東日	wind Speed 20 Knots NE			3	6	4	Bumpy	0
	Provide Information Below If	Seal or Breather Hole is Observed.	Otherwise Leave Blank.	3.5	8	6	Bumpy	0
hting	Sighting Time Start / End	Start.	End	4	4	2	Bungy	0
Sig	Duration of Sighting			4.5	8	6	Bunpy	0
and a	Number of Animals	Aduts	Awenies .	5	6	4	Bumpy	0
Behavio	Behaviors Observed	Sietping, Resting, Traveling etc		5,5	6	2	Bumpy	0
	Did Your Activity Change the Animals Behavior	Yes	/ No	6	п	8	Burney	0
1	Observer to Animal	Distance	Feet / Yards / Meters	6.5	6	6	Bungy	0
stance	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	10	6	Bumpy	0
DE	GPS Coordinates of Observer	GPS/Mile Marker		7.5	6"	6"	BUNEV	0
311	Mark on attached map approx location of seal							
y .	Project Activity During Sighting (vehicle type/equipment)							
Acetal	What Actions Were Taken to Mitigate Negative Interaction							× .
- AN	Duration of Time Operations Impacted							
	Notes Started from				2			

1.00

Surve bad fo m. a measu	ay Protocol: Observers stop every 1 r 5 minutes; record details sighting record basic info (distance, #, locati urements on nearest unpacked sno (see the measure) Plass take	/2 mile and observe 150 m on s within 150 m. For sightings F on) in Notes section, Take two w at each stop; flip coin to cho notes of any seals or signs of	either side of Please email this log urther than 150 every survey day to snow depth psologs@hilcorp.com ose which side seals.			Snow depti	n 1	
	of road to measure. Please take	3 - 3 -	- 23 Iind		Deepest Snow Depth	Shallowest	Snow characterization If (Bumpy es Uniform the	snow is in drifts, stimate how close e peaks are to one
*	Survey Start Time / End Fime	12:30	4:45	Mile Marker	(meters/cm)	(meters/cm)	Flat, etc)	inother (meters)
	Observer Name	Erin	Moorhead	0.5	6	4	Bumpy	U
1	Visibility	l D	Feet / Yards / Meters / Miles	1	6	4	Bumpy	0
	Estimated % of Sun Glare Affecting Field of Vision	0%		1.5	9	4	Bumpy	6
milit-	Weather Conditions	For Rain, Snow etc. LIRM	r	2	7	4	Bunpy	0
96	Temperature	Tems - 27	c \🕐	2,5	8	6	Bungy	в
	Wind	Speed 5	Direction INSEW	3	6	4	Burgey	6
	A	Seed or Readber Minie () Chapter	wer three the special sectors	7.5	8	6	Burny	0
		Scare	End		C	5	Burger	6
11111	Sighting Fime Start / End			4	2	0	- Paripp	0
1112	Duration of Sighting	Andre	Juveniles	4.5	8	8	Bumpy	0
	Number of Animals	No. 1		5	6	4	Bumpy	0
(SHEET)	Behaviors Observed	Sleeping, Resting, Traveling Atc.		5.5	10	7	Bungy	0
fina -	Did Your Activity Change the Animals Behavior	()	(es / No	6	6	6	Bumpy	6
	Observer to Animal	Distance	Feet / Yards / Meters	6.5	10	6	Burpy	0
14	Closest Point Animal Approached	Distance	Feet / Yards / Meters	7	10	6	Bumpy	0
WHINK!	Road or Activity	GPS/Mile Marker		7.5	7	6	Bunfy	6
	Mark on attached map approx					×.	11	
1-010	Incation of seal Project Activity During Sighting							
-	(vehicle type/equipment) What Actions Were Taken to							
a la	Mitigate Negative Interaction Duration of Time Operations							
	Notes	shore						

28 (______

This Log must be emailed to PSOlogs@hilcorp.com after every survey, 2/16/2022 Rev, 1

for for	y Protocol: Observers stop every 1 5 minutes; record details sighting acord basic info (distance, #, location rements on nearest unpacked snoo of mad to measure. Please take	I/2 mile and observe 150 m on e (5 within 150 m. For sightings fui on) in Notes section. Take two s w at each stop; filp coin to choo photos of any seals or signs of s	Ither side of Please email this log rther than 150 every survey day to now depth psologs@hilcorp.com se which side eals.			Snow depth	1	
	Date	3 - 5 - 20	23 ·		Deepest Snow	Shallowest	Snow characterization (Bumpy Uniform	If snow is in dr estimate how of the peaks are to
• 5:	urvey Start Time / End Fime	9:00	12:15	Mile Marker	Depth (meters/cm)	(meters/cm)	Flat, etc)	another (met
	Observer Name	Erin M	loorhead	0.5	7"	4"	Bumpy	0
I	Visibility	Distance 10	Feet / Yards / Meters	1	6	4	Bungy	0
-	Estimated % of Suo Glare Affecting Field of Vision	0		1.5	8	4	Bunpy	0
ſ	Weather Conditions	Fog. Rain, Soow etc. Sunny		2	7	4	Bumpy	0
ſ	Temperature	~ 2 2	c \ ()	2.5	7	5	Bung	, 0
ŀ	Wind	ZO Kts	Direction (M.S.C.W)	3	6	4	Bumpy	. 0
	Province to Service to Balance H	Seal of Breather Holers Obview	en Openstein Lawe Mart.	3.5	8	.6	Bumpy	0
T	Sighting Time Start / End	Start	End	4	4	Ч	Bumpy	0
ł	Duration of Sighting			4.5	6	6	Burnpy	0
t	Number of Animals	Adulta	ะตุ _ต ่างจะเป	5	6	4	Bampy	0
ł	Behaviors Observed	Skeping, Resting, Traveling etc.		5.5	8	8	Bumpy	0
	Did Your Activity Change the Animals Behavior	Ye	es / No	6	ıl	8	Brompy	0
	Observer to Animat	Distance	Feet / Yards / Meters	6.5	10	6	Bampy	0
	Closest Point Animal Approached Road or Activity	Oistance	Feet / Yards / Meters	7	10	6	Bamp	y C
Charles and	GPS Coordinates of Observer	GPS/Mile Marker		7.5	6	6	Bung	y C
	Mark on attached map approx location of seal						Bun	NO
	Project Activity During Sighting (vehicle type/equipment)						Bumy	oy C
1	What Actions Were Taken to Mitigate Negative Interaction						Bump	y D
							Phys	04

(4)

21

This Log must be emailed to PSOlogs@hilcorp.com after every survey, 2/16/2022 Rev, 1

Surv road f m. meas	rey Protocol: Observers stop every 1 or 5 minutes; record details sighting record basic info (distance, #, locati iurements on nearest unpacked sno	/2 mile and observe 150 m on eith swithin 150 m. For sightings furth on) in Notes section. Take two sno w at each stop; flip coin to choose observe of any seals or signs of sea	her side of Please email this log her than 150 every survey day to w depth esologs@hilcorp.com which side 15.			Snow dept		
	of road to measure. Hease take	3-7-Z	3		Deepest Snow	Shailowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
	Survey Start Time / End Time	13:00	16:15	Mile Marker	Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	another (meters)
	Observer Name	Phil Hu	bbard	0.5	6	4	BUMPS	
	Visibility	Distance	Feet / Yards / Meters Miles	1	6	4	11	
	Estimated % of Sun Glare Affecting Field of Vision	0	IO Peet / Hands / Melcers (Miles) Rain, loow etc. Clec.V IU C (E) IU C (E) IU Direction (M.S.E.W)			Ч	11	
trade on	Weather Conditions	Fee Rain Snow etc. CIECV		2	7	4		
16	Temperature	Temo 14	c \F	2.5	8	5	···// ···:	4 8 I
5	Wind	Speed	Direction (M.S.E.W)	3	7	5	11	
	Provide information field with	Seal or Sirabler Hole (y Obsurved	L'INTERNET LINE (MARTE	3.5	7	5	11	×
E.C.	Sighting Time Start / End	Start	End	4	6	4	11	
450.04	Duration of Sighting			4.5	6	4	11	
-	Number of Animals	Adults	Juvenites	5	7	4	11	
ini.	a-haviar Observed	Steeping, Resting, Traveling etc			7	5	11	
aidin.	Benavious Busice	Var	/ No	5,3	9	C		
	Animals Behavior	Olytance		6	C	6	_//	
1	Observer to Animal	8	Feet / Yards / Meters	6.5	9	6	11	
dense	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	9	5	11	
4	GPS Coordinates of Observer	GPS/Mile Marker		7 5	8-	5	11	
	Mark on attached map approx location of seal							
	Project Activity During Sighting (vehicle type/equipment)							
Condition of the	What Actions Were Taken to Mitigate Negative Interaction Duration of Time Operations				-			
1	impacted							
×	Notes	CAIM	winds					

e a

1.4.4.1

1.

Surv road fo m, meas	ey Protocol: Observers stop every 1 r 5 minutes; record details sighting record basic info (distance, #, locati urements on nearest unpacked sno	1/2 mile and observe 150 m on eith 15 within 150 m. For sightings furth on) in Notes section. Take two sno w at each stop; filp coin to choose ophene of any each or signs of sea	ner side of ler than 150 w depth which side b.			Snow depth		
	Date	3-9-23	Find		Deepest Snow	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•	Survey Start Time / End Time	14:00	17:20	Mile Marker	Depth (meters/cm)	Snow depth (meters/cm)	Flat, etc)	another (meters)
	Observer Name	Phil Hub	berd	0.5	6"	<u> </u>	bump	
10	Visibility	Distance	Feet / Yards / Meters	1	5	3	li	
	Estimated % of Sun Glare Affecting Field of Vision	0		1.5	6	3	- ()	
tontra	Weather Conditions	Fog. Rain, Snow stc		2	7	4	11	
	Temperatura	- 14	c \ 🗗	2.5	7	4	11	
the second	Wind	ZOKT	Direction (N.S.E.W)	3	8	5	li	
	Provide Information Bolow IF	Saal or Breather Hale is Observed	Otherwise leaved Blank	3,5	7	4	11	
a,	Sighting Time Start / End	Start	End	4	7	4	11	
signi	Duration of Sighting			4.5	6	4	u	
	Number of Animals	Adults	Juveniles	5	6	3	11	
headar	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	6	3	11	
Be	Did Your Activity Change the Animals Behavior	Yes	/ No	6	C	4	11	
19.00	Observer to Animat	Distance	Feet / Yards / Meters	6.5	8	5	11	
inte	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	9	5	11	
Diste	GPS Coordinates of Observer	GPS/Mile Marker		7.5	E	4	(1	
1	Mark on attached map approx							
	Project Activity During Sighting							
Annu	What Actions Were Taken to							
an a	Duration of Time Operations							
	Notes	blowic	13 SNOL	N				

1. 3. 4. If a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alternai survey was not done on a particu a note saying "No seal	Please email this log every survey day to psologs@hilcorp.com			Snow dept	h			
	Date	3-11-Z3				Present	Shallowest	Snow characterization (Bumpy	tf snow is in drifts,
5	Survey Start Time / End Time	12:00	15	:15	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Ho	1650	vd	0.5	8″	4″	bumpy	
100	Visibility	3	Feet / Y	Yards / Meters Miles	1	6"	4″	bump)	/
	Estimated % of Sun Glare Affecting Field of Vision	0			1.5	8"	3''	bump	/
Weather	Weather Conditions	For Main Show etc.	w		2	7"	311	bump;	/
	Temperature	5		c \ 🕞	2,5	5"	4"	bump,	Y
A C	Wind	Speed: 10	Direction (N.S.E.)	ЧW	3	8"	4″	bump	/
	Provide Information below Include b	for ALL seal or breathing hole observa otes to further describe behavior, rea	tions, otherwi ctions, etc.	se leave biank	3.5	6"	3"	bumpy	•
Bui	Sighting Time Start / End	Start	End		4	6"	3″	bumpy	/
sight	Duration of Sighting				4.5	6"	3″	bump	Y
	Number of Animals	Adults	Juveniles		5	7"	3"	bunt	Y
Initial	Behaviors Observed	Sleeping, Resting, Traveling etc			5.5	8"	5"	bum	ey .
æ	Did Your Activity Change the Animals Behavior	Yes	/ No		6	8"	5"	bump	Y
	Observer to Animal	Distance	Fe	et / Yards / Meters	6.5	7"	4"	bum	r
ance	Closest Point Animal Approached Road or Activity	Bistance	Fe	et / Yards / Meters	7	8"	5''	bump	Y
Dist	GPS Coordinates of Observer	GPS/Mile Marker			7.25	6"	3"	bumi	Рγ
	Mark on attached map approx location of seal					NI OF			
i	Project Activity During Sighting (vehicle type/equipment)								
clivity	What Actions Were Taken to Mitigate Negative Interaction				見る中部				
	Duration of Time Operations Impacted						ANS CON	34835	WILL OF ST
	Notes								

1. ; ; 3. 4. If a	Su Observer stops every 0.5 mlles an minin 2. Record sighting details for ALL s Take two snow depth measureme alternai survey was not done on a particu a note saying "No sea	rvey Protocol: d observes 150 m on either side of the num of 5 minutes. Ightings. Take photos of seals or signs nuts on the nearest unpacked snow at te sides of the road. Iar day due to inclement weather, sub survey due to inclement weather.	e road for a of seals. each stop; pologs@hilcorp.com point a log with	this log y day to porp.com				
	Date	3-13-3	23		Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
10	Survey Start Time / End Time	12:30	15:30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil He	ibberd	0.5	7"	4"	bump	Y
1	Visibility	Distance:	Feet / Yards / Meters	1	7"	411	bump	Y
	Estimated % of Sun Glare Affecting Field of Vision	0		1,5	7"	3"	bum	Y
Veather	Weather Conditions	For hair, scow etc	SUNNY	2	6"	3"	bunt	y
No. of Street, or	Tempéniture	Temp ~ ZZ	C (F)	2,5	6"		bump	/
S Sta	Wind	Speed 2	Direction (N,S,E,W)	з	7"	4"	bumf	4
	Provide information below include n	for ALL seal or breathing hole observations to further describe behavior mit	dions, otherwise leave blank. ctions, etc.	3,5	5"	3"	bump	y
ani	Sighting Time Start / End	Start	End	4	6"	3"	bump	y
Sight	Duration of Sighting			4.5	7"	4"	bune	V
	Number of Animals	Adults	lumoiles	5	7"	4"	bump	/
shavlor	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	9"	411	Sump	1
æ	Did Your Activity Change the Animals Behavior	Yes	5 / No	6	8"	5"	bump	1
	Observer to Animal	Détance	Feet / Yards / Meters	6.5	7"	3"	bump	
ance	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	5"	bumpy	
Dist	GPS Coordinates of Observer	IGPS/Mile Marker		7.25	6"	3″	bume	Y
	Mark on attached map approx location of seal				1. Jai 5			
	Project Activity During Sighting (vehicle type/equipment)							
ctivity	What Actions Were Taken to Mitigate Negative Interaction			STATE OF				
e	Duration of Time Operations Impacted				34572	80.2		でいるよう
	Notes							

1. 3. 4. if a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alternat survey was not done on a particul a note saying "No seal	Please email this log every survey day to psologs@hilcorp.com			Snow depth			
	Date	3-15-23				Openest	Shallowest	Snow characterization (Bumpy estimate how close
. 1	Survey Start Time / End Time	Start 14:15	17	30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)
	Observer Name	Phil Hul	bbar	10	0.5	5"	3″	bum PY
の市	Visibility	Distance	Feet / Y	ards / Meters Miles	1	6"	3"	bumpy
E	Estimated % of Sun Glare Affecting Field of Vision	0			1.5	7"	4"	bumpy
Veather	Weather Conditions	Fog. Rain, Snow etc			2	6"	4 "	bumpy
	Temperature	^{Temp} - 28		c \	2.5	8"	5"	bumpy
Part of the last	Wind	Speed 5 KT	Direction (N,S,E,W	N	3	0011	5"	bumpy
	Provide information below Include o	for ALL searcor breathing hole observations to forther describe behavior, rear	ions, otherwis tions, etc.	e teasus titarik	3,5	6"	4'	bumpy
201	Sighting Time Start / End	Start	End		4	6"	y"	bumpy
sight	Duration of Sighting				4,5	9"	5"	bumpy
(Call	Number of Animals	Adults	Juveniles		5	7"	3"	bumpy
ehavior	Behaviors Observed	Sleeping, Resting, Traveling etc			5.5	911	6'	bumpy
8	Did Your Activity Change the Animals Behavior	Yes	/ No		6	7"	4'	bempy
1 and	Observer to Animal	Distance	Fee	et / Yards / Meters	6.5	7"	41	bumpy
aitee	Closest Point Animal Approached Road or Activity	Distance	Fee	et / Yards / Meters	7	8"	3'	bumpy
bisi	GPS Coordinates of Observer	GPS/Mile Marker			7.25	7"	4'	bumpy
1991	Mark on attached map approx location of seal				Anisona	A. Carl	AL WE	
	Project Activity During Sighting (vehicle type/equipment)				e strategica			
citvity	What Actions Were Taken to Mitigate Negative Interaction							
4	Duration of Time Operations Impacted							
	Notes							

1. 3. 4. If a	Si Observer stops every 0.5 miles ar minin 2. Record sighting details for ALL Take two snow depth measurem alterna survey was not done on a particu a note saying "No seal	urvey Protocol: In observes 150 m on either side of the num of 5 minutes. Sightings. Take photos of seals or signs of ents on the nearest unpacked snow at en- te sides of the road. If ar day due to inclement weather, subr survey due to inclement weather."	Please email this log every survey day to psologs@hilcorp.com			Snow depth			
	Date	3-17-23				Deenest	Shallowerst	Snow characterization (Bumov	If snow is in drifts,
	Survey Start Time / End Time	start 13:30	16:	30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hub	bar	2	0.5	4"	Ζ"	bump	/
Sale of	Visibility	L O	Feet / Y	ards / Meters / Miles	1	6"	4″	bomp	y
	Estimated % of Sun Glare Affecting Field of Vision	0			1.5	6"	4"	bump	Y
Veather	Weather Conditions	Fog. Rain, Snow etc. SUHLY SK.	'es		2	6"	3''	bump	1
128	Temperature	-23		c \	2.5	7"	311	bump	/
100	Wind	Speed N/A	Direction (N,S,E,W	n	з	7"	4"	bume	У
	Provide information below include r	for ALL seal or breathing hole observat	lons, otherwis tions, etc.	e leave blimit.	3.5	64	411	bump	y
8	Sighting Time Start / End	Start	ind		4	5"	3/1	bump	Y
Sight	Duration of Sighting				4.5	2"	5"	bumio	/
	Number of Animals	Adults	Juveniles		5	7"	5″	bump	Y
havlor	Behaviors Observed	Sleeping, Resting, Traveling etc.	1		5.5	8"	6"	bump	- 8 1/
386	Dld Your Activity Change the Animals Behavior	Yes	/ No		6	6"	3″	bump	
	Observer to Animal	Datance	Fee	t / Yards / Meters	65	6"	3(1	bump	v/
annee 1	Closest Point Animal Approached Road or Activity	Distance	Fee	t / Yards / Meters	7	7"	411	bump	Y
Dista	GPS Coordinates of Observer	GPS/Mile Market			7 25	6"	411	bump	V
÷	Mark on attached map approx location of seal					in star			
	Project Activity During Sighting (vehicle type/equipment)								
Activity	What Actions Were Taken to Mitigate Negative Interaction Duration of Time Operations								
	Impacted				1.22.22.1			and they have be	
	Notes	STRITED	Fre	om 5k	nore				

1. 3. 4. If a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	rvey Protocol: d observes 150 m on either side of ti num of 5 minutes. Ightings. Take photos of seals or sig nts on the nearest unpacked snow a te sides of the road. Iar day due to inclement weather, s survey due to inclement weather.*	he road for a hs of seals. at each stop; ubmit a log with			Snow depth	
	Date	3-19-2:	2			ch	Snow aracterization If snow is in drifts, (Summer activity how close
	Survey Start Time / End Time	12:45	5 15:50 Mile Marker (meters/cr		Snow Depth (meters/cm)	Snow Depth Snow depth ((meters/cm) (meters/cm) F	Uniform the peaks are to one Flat, etc) another (meters)
	Observer Name	Phil Hu	oberd	0,5	4"	311	bumpy
	Visibility	Distance:	Feet / Yards / Meters	1	5"	3″	bumpy
SMS.	Estimated % of Sun Glare Affecting Field of Vision	0		1,5	5"	3″	bumpy
Veather	Weather Conditions	Fog. Rain, Snow etc.	<u>'</u>	2	6"	4"	bumpy
N. C.	Temperature	1 ^{temp} - 9	c (C)	2,5	6"	4"	bumpy
Sam 5	Wind	Speed.	Direction (PR,5,E,W)	3	6"	3"	bumpy
	Provide information below Include n	for ALL seal or breathing hole obser ones to heriter describe behavior, o	vations, otherwise leave blank.	3,5	7"	4"	buner
Buj	Sighting Time Start / End	Start	End	4	6"	5"	bumpy
sight	Duration of Sighting			4.5	6"	4″	bunely
100	Number of Animals	Adults	Juveniles	5	8"	5"	bumey
shavior	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	?"	5"	bumpy
a	Did Your Activity Change the Animals Behavior	Y	es / No	6	6"	3"	buney
	Observer to Animal	Distance	Feet / Yards / Meters	65	6"	3''	bunney
ance	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	5"	bumpy
Diste	GPS Coordinates of Observer	GPS/Mile Marker		7.25	6"	3''	bumpy
5-20	Mark on attached map approx						Ten Starte Same
	Project Activity During Sighting (vehicle type/equipment)						
NINE	What Actions Were Taken to Mitigate Negative Interaction						
A	Duration of Time Operations Impacted						
2	Notes						

1. 3. 4. If a	Su Observer stops every 0.5 miles minin Minin 2. Record sighting details for ALL s Take two snow depth measureme alternai survey was not done on a particu a note saying "No seal	Invey Protocol: d observes 150 m on either side of num of 5 minutes. ightings. Take photos of seals or sli ents on the nearest unpacked snow te sides of the road. lar day due to inclement weather, survey due to inclement weather.	the road for a gns of seals. at each stop; submit a log with		Snow depth				
	Date	3 - 21 ·	-23		Deepest	Shaflowest	Snow characterization (Bumov	tf snow is in drifts, estimate how close	
	Survey Start Time / End Time	start 1:30	End 4:30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)	
	Observer Name	Erin M	loorhead	0,5	Ч"	4"		bumpy	
	Visibility	Distance.	Feet / Yards / Meters / Miles	1	s "	411		bimpy	
物日	Estimated % of Sun Glare Affecting Field of Vision	0%		1.5	5"	3"		bumpy	
Weather	Weather Conditions	Fog. Rain, Snow etc.	sky	2	5"	4"		bumpy	
	Temperature	Temp 10	c \ 🕼	2,5	6''	411		bumpy	
	Wind	Speed 7	Direction (M.S.E.W)	3	6"	4 ⁿ		bumpy	
	Provide Information Oxfow Include I	for ALL seal or breathing bole obse ones to further describe behavior, r	nextions, otherwise kave blank reactions, etc.	3.5	6"	5"		Lumpy	
đuj	Sighting Time Start / End	Start	End	4	5"	5"		burgey	
Sight	Duration of Sighting			4_5	6"	4"		- b myy	
	Number of Animals	(Adults:	fuicculles	5	8"	S		pumpy	
ehavior	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	8"	5"		yaned	
8	Did Your Activity Change the Animals Behavior	Y	es / No	6	6"	3 1		6 umpy	
	Observer to Animal	Distance	Feet / Yards / Meters	65	5"	4"	,	bumpy	
Ince	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7''	4"		bumpy	
Dist	GPS Coordinates of Observer	GPS/Mile Marker		7.25	6"	3"		Jo umpy	
	Mark on attached map approx			SAPEKS &	1.2.2.2	100			
	Project Activity During Sighting (vehicle type/equipment)								
ctivity	What Actions Were Taken to Mitigate Negative Interaction			A State State					
A	Duration of Time Operations Impacted					10.13.17	Segure	- Andrewski	
	Notes	Sturter	from	Shore					

1. : 3. 4. If a	St Observer stops every 0.5 miles an minir 2. Record sighting details for ALL 5 Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	road for a of seals. each stop; mit a log with			Snow dept	h	
	Date	mm/dd/yyyy 3-23-23	Teat		Deepest	Shallowest	Snow characterization (Bumpy estimate how close
• •	Survey Start Time / End Time	6:00	9:00	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)
	Observer Name	Erin M	oorhead	0.5	4"	4"	bumpy
15	Vísibility	Distance 10	Feet / Yards / Meters	1	4"	411	Lumpy
	Estimated % of Sun Glare Affecting Field of Vision	0%	6.00 Erin Moorhead Feet/Yards/Meters 10 Feet/Yards/Meters 0 0 10 Clear Skies 0 CIE 16 Kts NE LI seal or breathing tole observations, otherwise loave blank to further descript behavior, etactions, etac			4 47	bump
Weather	Weather Conditions	toe hain snow etc. Clear S	kies	2	6"	54	bumpy
ALC: NO	Temperature	Temp	C \ (F)	2,5	8"	511	bunpy
	Wind	Speed 16 Kts	NE NE	З	7"	411	brmpy
	Provide information below Include n	For ALL seal or breathing hole observat sites to further describe behavior, rear	toos, otherwise leave brank tions, etc.	3,5	5"	S	bungy
Buj	Sighting Time Start / End	Start	End	4	6''	4"	bumpy
sight	Duration of Sighting			4.5	8"	5"	bumpy
	Number of Animals	Adults	Juveniles	5	8''	5"	bumpy
ehavlor	Behaviors Observed	Sleeping, Resting, Traveling otc		5.5	8"	5 "	bungy
	Did Your Activity Change the Animals Behavior	Yes	/ No	6	6"	4''	bunpy
	Observer to Animal	Distance	Feet / Yards / Meters	65	5 "	4 "	buarry
	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	4"	bumpy
- SPIN	GPS Coordinates of Observer	GP5/Mile Märker		7 25	7"	311	bump y
	Mark on attached map approx location of seal			S that was the			
	Project Activity During Sighting (vehicle type/equipment)						
culty	What Actions Were Taken to Mitigate Negative Interaction			24. Chicke			
(A)	Duration of Time Operations Impacted					것이델및	
	Notes	No 5	eals				

.

3. . If a	minir Record sighting details for ALL s rake two snow depth measurem alterna survey was not done on a particu a note saying "No seal	a observes 150 m on either side of un num of 5 minutes. Sightings. Take photos of seals or sign ents on the nearest unpacked snow a te sides of the road. Iar day due to inclement weather, su survey due to inclement weather."	ns of seals. at each stop; ubmit a log with	Please email this log every survey day to isologs@hilcorp.com			Snow dept	h	
1.000	Date	3 - 25 - 23	End			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
	iurvey Start Time / End Time	7:45	10	45	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Flat, etc)	another (meters)
	Observer Name	Eria M	Moorh	ead	0.5	<i>4</i> "	3"		bumpy
	visibility	l O	Feet / Yard	s / Meters / (iles	1	5"	3"		buryy
	Estimated % of Sun Glare Affecting Field of Vision	0	0			5"	3''		bumpy
Veather	Weather Conditions	Fog. Rain, Snow etc. Clear			2	6"	5''		bungy
N	Temperature	Temp - 9		c \ 🜔	2,5	8''	5"		bunpy
A PA	Wind	speed 18	Direction (N.S.E.W)		3	7''	4 r		bumpy
	Provide Information below Include n	for ALL seal or orgathing hole observ observe further describe behavior, re-	ations, otherwise le actions, etc.	save blank	3.5	6"	5**		burny
2	Sighting Time Start / End	Start	End		4	·5''	5**		bungy
114gis	Duration of Sighting				4,5	6"	4"		- bunp
12	Number of Animals	Adults	tweniles		5	8"	5"		bump
shavlor	Behaviors Observed	Sleeping, Resting, Traveling etc			5.5	8"	5"		bump
3	Did Your Activity Change the Animals Behavior	Ye	es / No		6	6"	4"		bump
	Observar to Anlina	Distance	Feet / '	Yards / Meters	6.5	5"	4"		bumpy
ance	Closest Point Animal Approached Road or Activity	Ontance	Feet /	Yards / Meters	7	7"	5°		bumpy
Dist	GPS Coordinates of Observer	GPS/Mile Marker			7.25	6"	3"		bumpy
and a	Mark on attached map approx location of seal					121102			
	Project Activity During Sighting (vehicle type/equipment)								
tivity	What Actions Were Taken to								
Ac	Duration of Time Operations Impacted				1. M. 1.				
	Notes	started	fro	m she	ore /	No	b	seal:	S

1. 3. 4. If a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALLs Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	Snow depth							
	Date	3 - 27 -	23			Deenest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
	Survey Start Time / End Time	Stat: 12:00 End 3:06		6	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Erin 1	Moorhea	d	0.5	4"	4"		bumpy
1	Visibility	Distance	Feet / Y	ards / Meters / Miles	2 1	5"	3"		bunpy
	Estimated % of Sun Glare Affecting Field of Vision	0			1.5	Su	3"		bunpy
feather	Weather Conditions	Fog. Hain, Show etc	1v		2	6"	SY		bumpy
8	Temperature	Temp - 0		C \ (F)	2.5	6"	4 "		bumpy
	Wind	speed 14	Direction (N,S,E,W	S	3	6"	5 "		bumpy
	Provide information below	for ALL seaf or breathing hole a notes to further describe behav	ibservations, otherwis or, reactions, etc.	æ i ense blank	3.5	6"	511		bumpy
	Sighting Time Start / End	Stort	End		4	5"	5"		bunpy
indais	Duration of Sighting			×	4,5	6"	4"		bumpy
	Number of Animals	Adults	tuveniles		5	8"	5 "		bumay
haidor	Behaviors Observed	Sleeping, Resting, Traveling etc			5,5	8"	5"		bumpy
Be	Did Your Activity Change the Animals Behavior		Yes / No		6	6"	4		buney
	Observer to Animal	Distance	Fee	t / Yards / Meters		5"	4"		bumpy
)eee	Closest Point Animal Approached	Distance	Fee	t / Yards / Meters	6,5	7"	5"		bumby
Dista	GPS Coordinates of Observer	GPS/Mde Marker			7.75	6"	311		bungy
101	Mark on attached map approx location of seal				1.23				
	Project Activity During Sighting (vehicle type/equipment)				N. F. H.				
ctivity	What Actions Were Taken to Mitigate Negative Interaction								
1	Duration of Time Operations Impacted						1. 1. 1.		
	Notes	1	Vo s	seals					

1. 3. 4. If a	Survey Protocol: 1. Observer stops every 0.5 mlles and observes 150 m on either side of the road for a minimum of 5 minutes. 2. Record sighting details for ALL sightings. Take photos of seals or signs of seals. 3. Take two snow depth measurements on the nearest unpacked snow at each stop; alternate sides of the road. 4. If a survey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to inclement weather."					Snow depth				
	Date	3-29-	-23			Deepest	Shallowest	Snow characterization (Bumpy	if snow is in drifts, estimate how close	
	urvey Start Time / End Time	7:00	10:	End 10 = 00		Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)	
	Observer Name	Erin M	Moorhea	d	0.5	5"	3"		Bumpy	
	Visibility	Distance Distance	Feet / Ya	rds / Meters / ն	1	5"	3"		Bumpy	
No.	Estimated % of Sun Glare Affecting Field of Vision	0			1.5	5"	4"		Bumpy	
Veather	Weather Conditions	Fog. Rain, Snow etc. /ear			2	5	5 "		Bumpy	
	Temperature	Temp - C		c \(F)	2.5	8"	5"		Bumpy	
	Wind	speed 14	Direction (N,S,C,W)	2	з	5"	5."	a s a s	Bumpy	
	Providé information below	for ALL seal or breathing note obser- totes to further describe behavior, r	vations, otherwise mactions, etc.	tenve olank.	3.5	7"	4"		Rinner	
a.	Sighting Time Start / End	Start	End		4	7"	3 "		Bumpy	
Sightl	Duration of Sighting				4.5	8"	4"		Buney	
	Number of Animals	Adults	liquitivilles		5	9"	4"	, 	Bungy	
shavior	Behaviors Observed	Sleeping, Resting, Traveling etc.			5.5	6"	5"		Bugpy	
96	Did Your Activity Change the Animals Behavior	Yı	es / No		6	6"	4	h	Bunpy	
	Observer to Animal	Distance	Feet	/ Yards / Meters	6.5	5"	5'	(Bunpy	
ance	Closest Point Animal Approached Road or Activity	Distance	Feet	/ Yards / Meters	7	7"	5"		Bungy	
Dist	GPS Coordinates of Observer	GPS/Mile Market			7.25	8"	3'	(BUNFY	
	Mark on attached map approx				12.68%					
	Project Activity During Sighting (vehicle type/equipment)									
calvity	What Actions Were Taken to Mitigate Negative Interaction									
A	Duration of Time Operations Impacted						13-10		States Miles	
	Notes	No	Sea	15						

1. 3. 4. If a	Survey Protocol: 1. Observer stops every 0.5 miles and observes 150 m on either side of the road for a minimum of 5 minutes. 2. Record sighting details for ALL sightings. Take photos of seals or signs of seals. 3. Take two snow depth measurements on the nearest unpacked snow at each stop; alternate sides of the road. If a survey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to inclement weather."						Snow depth					
	Date	3/31/2	23				Deepest	Shallowest	Snow characterization (Bumpy	If snow is In drifts, estimate how close		
	Survey Start Time / End Time	start 11:50	E	2:50		Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)		
	Observer Name	Erin	M00	thend		0.5	4"	3''				
	Visibility	Distance 10		Feet / Yards / Meters ,	Milez	1	4 "	3"				
100	Estimated % of Sun Glare Affecting Field of Vision	0	1.			1+5	4"	4"				
reather	Weather Conditions	Fog, Rain, Snow etc.	<i>lear</i>			2	5 "	4"				
1	Temperature	Temp -4		c \(8	2,5	6"	5"				
	Wind	Saeed G	1	Direction (N.S.E.W) 5 W		3	4"	4"				
	Provide information bejow	to: All seal or breathing otes to further describe i	hain observatio behavior, reacti	m, otherwise leave blank. ons. etc.		3.5	5"	4"				
2	Sighting Time Start / End	Scart	1	End		4	7 "	41				
signir	Duration of Sighting					4.5	8"	4"				
18.1	Number of Animals	Adults		luvenies		5	8"	4"				
havior	Behaviors Observed	Sleeping Retting Traveling etc				5.5	6"	5.0				
8	Did Your Activity Change the Animals Behavior		Yes ,	/ No		6	6"	5"				
	Observer to Animal	Distance		Feet / Yards / Me	ters	6.5	7"	40				
nce	Closest Point Animal Approached Road or Activity	Distance		Feet / Yards / Me	ters	7	6"	511				
Dista	GPS Coordinates of Observer	GPS/Mile Marker				7.25	8"	<i>4</i> "				
	Mark on attached map approx location of seal						10 M		22. BAR			
	Project Activity During Sighting (vehicle type/equipment)						54.5					
Activity	What Actions Were Taken to Mitigate Negative Interaction											
1 is	Duration of Time Operations Impacted				-	E.C. C. C. BA	- A - 3		THE FROM	E 102 00 1		
	Notes	No	Se	eals								

1. 3. 4. If a	St Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	Snow depth							
	Date	4-2-	.23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•	Survey Start Time / End Time	start 11:45	End 2:4	15	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Erin	Moorhe	ad	0,5	5"	3"		
No.	Visibility	Distance	Feet / Yards	s / Meters /	1	4"	3"		
191	Estimated % of Sun Glare Affecting Field of Vision	0%			1,5	<u>4</u> "	3"		
Veather	Weather Conditions	Fog. Rain, Snow etc	orst		2	5"	51		
No.	Temperature	Temp 8	C		2.5	7"	5"		
	Wind	Speed: 17	Direction (N.S.E.W)	E	3	4"	<i>4</i> "		
	Provide information below to, jude o	for ALL seal or breathing hole ob- otes to further describe belravior	servations, otherwose in , reactions, etc.	ave blank.	3.5	5"	4"		
ani	Sighting Time Start / End	Start	End		4	6"	4"		
Sight	Duration of Sighting				4.5	7"	4"		
	Number of Animals	Adults.	Juveniles		5	8''	5"		
shavior	Behaviors Observed	Steeping, Resting, Traveling etc			5.5	5"	5"		
Be	Did Your Activity Change the Animals Behavior		Yes / No		6	6"	5"		
	Observer to Animal	Distance	Feet / Y	'ards / Meters	6-5	7 "	4"		
ance	Closest Point Animal Approached Road or Activity	Distance	Feet / Y	ʻards / Meters	7	5"	S "		
Dist	GPS Coordinates of Observer	IGPS/Mile Marker	J		7.25	8"	5"		
	Mark on attached map approx							R. Carlos	ALL SUCCES
	Project Activity During Sighting								
elvity	What Actions Were Taken to				1.000				
As	Duration of Time Operations					15.5	1318	A Kite A	and the second
3	Notes	No	sea	ls					

Survey Protocol: 1. Observer stops every 0.5 miles and observes 150 m on either side of the road for a minimum of 5 minutes. 2. Record sighting details for ALL sightings. Take photos of seals or signs of seals. 3. Take two snow depth measurements on the nearest unpacked snow at each stop; alternate sides of the road. 4. If a survey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to inclement weather."						Snow depth					
	Date	1-4-23				Deedest	Shallowest	Snow characterization If snow is in drifts, (Bumpy estimate how close			
	Survey Start Time / End Time	Start 1:40 End 4:		40	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)			
	Observer Name	Phil Hubbe	rd		0,5	5."	3"	DUMPY			
1	Visibility	Distaince IO	Feet / Y	ards / Meters / Mile	1	6"	3"	bouner			
	Estimated % of Sun Glare Affecting Field of Vision	0%	÷		1.5	5"	311	bumpy			
Veather	Weather Conditions	Top Nam Snow etc.			2	5"	4"	bumpy			
No. No.	Temperature	Temp		c \()	2.5	7"	4"	bumpy			
第二	Wind	Speed	Direction (N.S.E.W)			67	3"	bumpy			
	Provide information below Include o	for ALL seal or breathing hole observe lotes to further describe behavior, rea	ations, otherwis	se te sve blims;	3.5	7"	4"	bumpy			
	Sighting Time Start / End	Start	End		4	5."	.4"	bumpy .			
Stight	Duration of Sighting				4.5	7'	3.11	bumpy			
	Number of Animals	Adults	Juveniles		5	7"	4"	bumer			
havlor	Behaviors Observed	Sleeping, Resting, Traveling etc			5.5	6"	3 //	BUMPY			
-H	Did Your Activity Change the Animals Behavior	Yes / No			6	6"	31	burney			
1	Observer to Animal	Dotance	Fee	et / Yards / Meters	6.5	6"	3"	bumpy			
ance	Closest Point Animal Approached Road or Activity	Distance	Fee	et / Yards / Meters	7	6"	4"	beinpy			
Dist	GPS Coordinates of Observer	GPS/Mile Marker			7.25	5"	3'	60011/2/			
	Mark on attached map approx						201 53				
2.22	Project Activity During Sighting										
tivity	What Actions Were Taken to Mitigate Negative Interaction				COST A						
- Be	Duration of Time Operations					5 2 w 2 1	1.28				
	Notes										

ż

-

1. (2 3. ' 4. If a	Sur Observer stops every 0.5 miles and minim L. Record sighting details for ALL sij Take two snow depth measuremen alternat survey was not done on a particuli a note avine "No sea! i	vey Protocol: observes 150 m on either side of i um of 5 minutes. ghtings. Take photos of seals or sig the son the nearest unpacked snow e sides of the road. ar day due to inclement weather, " urvey due to inclement weather."	the road for a proof seals. at each stop; submit a log with			Snow dept		
	Date	4-6-23			Deenest	Shallowest	Snow characterization If snow Is in drifts, (Bumpy estimate how close	
•	Survey Start Time / End Time	12:15	3-30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)	
	Observer Name	Phil He	ubberd	0.5	4"	3″	bumpy	
No.	VisibШty	Distance	Feet / Yards / Meters / Mile	1	5"	3"	bumey	
Salles	Estimated % of Sun Glare Affecting Field of Vision	0%	A	1.5	6"	4"	buney	
teather	Weather Conditions	For Main, Snow Re- CIECI		2	6"	3'	bumpy	
	Temperature	- 17	C (F)	2.5	7"	3"	bumpy	
	Wind	LS KT	Deection (R.S.E.W)	3	5"	2"	bumpy	
	Provida information onlow	for ALL sear or broathing total other	reations, orthonaise laave Minola. reactions, etc.	3.5	6"	4"	bompy	
	Sighting Time Start / End	Start	End	4	6"	3"	bumpy	
Sishin	Duration of Sighting			4.5	5"	4"	bump'l	
	Number of Animals	Aduits	Euvendes	5	6"	4"	bumpy	
miler	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	7"	5"	bumpy	
19	Did Your Activity Change the Animals Behavior		fes / No	6	7"	3 "	bumpy	
	Observer to Animal	Datance	Feet / Yards / Meters		7"	3"	bunty	
3	Closest Point Animal Approached	Distance	Feet / Yards / Meters		6"	3"	berney	
Disto	GPS Coordinates of Observer	GPS/Mile Marker		7.25	5"	4"	bumpy	
ú	Mark on attached map approx							
7	Project Activity During Sighting (vehicle type/equipment)							
etotry	What Actions Were Taken to Mitigate Negative Interaction			1913				
A	Duration of Time Operations Impacted			CE ASS	3 3 18 1	16.197		
	Notes							
1. (2 3. 1 4. If a s	Sur Observer stops every 0.5 miles and minim . Record sighting details for ALL si fake two snow depth measuremer alternat survey was not done on a particuli a note saying "No seal s	vey Protocol: I observes 150 m on either side of the um of 5 minutes. ghtings. Take photos of seals or signs - nts on the nearest unpacked snow at e e sides of the road. ar day due to inclement weather, sub survey due to inclement weather."	road for a of seals. each stop; mit a log with			Snow dept	5	
--------------------------------	--	---	---	-------------	---------------------------	---------------------------	------------------------------------	---
	Date	4-8-23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•5	iurvey Start Time / End Time	09:30	12:30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hubb	bard	0.5	5"	3"	tume	γ
	Visibility	Datance /O	Feet / Yards / Meters / Miles	1	5"	3"	bune	γ
	Estimated % of Sun Glare Affecting Field of Vision	0		1,5	7"	3″	bumey	/
(califier	Weather Conditions	Fog. Name, Snow etc		2	6"	4"	bumey	/
	Temperatura	Teme - 30	2.5	7"	3″	bumpy	/	
016	Wind	3	6"	3 11	bumpy			
	Provide Information bolow f	for All, seal or locatiling note observations to hattiler describe bellavioy, real	tions, otherwide issue blene. stions, Mr.	3.5	5"	2"	bumpy	
	Sighting Time Start / End	Start	End	4	6"	4"	BUMPY	·
Signal	Duration of Sighting			4,5	5"	4"	bumpy	
	Number of Animals	Adults	lovendes:	5	7"	4"	bumey	
invior	Behaviors Observed	Steeping, Resting, Traveling etc.		5.5	7''	311	bumpy	6
1	Did Your Activity Change the Animals Behavior	Yes	/ No	6	8"	4"	bumpy	2 5
	Observer to Animal	Ostance	Feet / Yards / Meters	65	8"	311	buney	
nce	Closest Point Animal Approached Boad or Activity	Distance	Feet / Yards / Meters	7	7''	4"	bump	(
Dista	GPS Coordinates of Observer	GPS/Mile Marker		7.25	6"	311	bump)	/
の調	Mark on attached map approx location of seel				1324			
	Project Activity During Sighting (vehicle type/equipment)			Cathy P				
netter	What Actions Were Taken to Mitigate Negative Interaction							
	Duration of Time Operations Impacted				HINGLA	98 S. N. C		
	Notes							

Diserver stops every 0.5 miles and minim I. Record sighting details for ALL sh fake two snow depth measuremen alternat survey was not done on a particul a note saying "No seal B	observes 150 m on either side of i um of 5 minutes. ghtings. Take photos of seals or sig ats on the nearest unpacked snow e sides of the road. ar day due to inclement weather, a unvey due to inclement weather.	Ins of seals at each stop; ubmit a log with			Snow dep	th
Date	4-10-23	Ind		Deepest	Shallowest	Snow characterization (Bumpy estimate how
Survey Start Time / End Time	10:10	1:15	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Flat, etc) another (mi
Observer Name	Phil Hu	ibberd	0,5	7''	4"	bumpy
Visibility	Distance 3/4	Feet / Yards / Meters	1	9"	6"	bumpy
Estimated % of Sun Glare Affecting Field of Vision	0		1,5	8"	6"	bumpy
Weather Conditions	OVERCAST /	blowing SNOW	2	8"	6"	bumpy
Temperature	- 5	c \🕝	2.5	5"	3"	bum py
Wind	Speed 18 KT	Direction (M, 5, F, W)	3	6"	4"	bumpy
Provide volumentari balana I Include fi	for All, west of breathing flote obse stes to further Meanthe behavior.	ryanions, otheraaliae lipsole blank. Inschinks, etc.	3,5	7"	4"	bumpy
Sighting Time Start / End	Start	End	4	7"	4"	bunpy
Duration of Sighting			4.5	8"	4"	bumpy
Number of Animals	Adults	Inventies	5	5 "	3"	bungy
Behaviors Observed	Sleeping, Resting, Traveling etc		5.5	6"	3"	bumey
Did Your Activity Change the Animals Behavior	Y	Yes / No	6	8"	5"	bumpy
Observer to Animal	Distance	Feet / Yards / Meters	6.5	9"	5"	bumer
Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	5"	bumpy
GPS Coordinates of Observer	GPS/Mde Marker		7.25	7"	4"	bumpy
Mark on attached map approx						
Project Activity During Sighting			C. Carl			
What Actions Were Taken to Mitigate Negative Interaction						
Duration of Time Operations						ana ng ewana 🔜 🛶 Kes

1. C 2 3. T 4. If a s	Sun Observer stops every 0.5 miles and minim Record sighting details for ALL si fake two snow depth measureme alternat survey was not done on a particul a note saying "No seal	rvey Protocol: I observes 150 m on either side of the n um of 5 minutes. ghtings. Take photos of seals or signs o nts on the nearest unpacked snow at e: e sides of the road. ar day due to inclement weather, subm survey due to inclement weather."	oad for a f seals. ach stop; hit a log with			Snow dept	
	Date	4-12-23			Deepest	Shallowest	Snow characterization if snow is in drifts, (Bumpy estimate how close
•s	urvey Start Time / End Time	2:30	5:30	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to on Flat, etc) another (meters)
	Observer Name	Phil Hubb	ocrd	0.5	7"	3"	bumpy
Mail	Visibility	Distance 3	Feet / Yards / Meters	1	7"	5	bumer
14	Estimated % of Sun Glare Affecting Field of Vision	0		1.5	811	511	bumey
	Weather Conditions	Fog, Rain, Snow etc.	-	2	6"	4"	bumpy
We	Temperature Tempi - 17 c (F)			2.5	611	4"	bumey
- HAR	Wind	Speed IN KI	Direction (N,S,E,W)	3	7"	5"	bumpy
	Recenté information beloix	for ALL scal of brighting bole observed	ions, athloneite loave board.	35	6"	3"	bumpy
	Sighting Time Start / End	Start	End	4	711	311	hemev
Signia	Duration of Sighting		I	4.5	6"	3″	bumpy
	Number of Animais	Adults	Iuseniles	5	611	41	bumey
nten	Behaviors Observed	Sleeping, Resting, Traveling etc.		3	711	4"	bumpy
non.	Did Your Activity Change the	Yes	/ No	5.5	9,"	5	bum PV
10.5 15 A	Animals Behavior	Distance	Feet / Yards / Meters	6	811	4"	burney/
	Closest Point Animal Approached	Distance	Feet / Yards / Meters	6.5	7"	4"	SUMEY
Bittain	Road or Activity	GPS/Mile Marker		7	6"	31	bum Py
	Gro coordinates or Ubserver Mark on attached map approx			7.25			50 11 1
23	Project Activity During Sighting						
silvity	What Actions Were Taken to Mitigate Negative Interaction						
A.	Duration of Time Operations Impacted			1000	WL Not	13-5-17	
	Notes						

1

1. (2 3. ' 4. If a	Su Observer stops every 0.5 miles and minim 2. Record sighting details for ALL si Take two snow depth measureme alternat survey was not done on a particul on one taxing ¹ Mo seal.	rvey Protocol: I observes 150 m on either side of the urm of 5 minutes. ghtings. Take photos of seals or signs nts on the nearest unpacked snow at a e sides of the road. ar day due to inclement weather, sub survey due to inclement weather.	road for a of seals. each stop; mit a log with	n		Snow depth		
	Date	4-14-23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
-	Survey Start Time / End Time	stan 11:30	2:40	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hul	bard	0.5	6"	3"	bumpy	<i>,</i>
	Visibility	Distance 10	Feet / Yards / Meters / Miles	1	6"	4"	bumpy	r
200	Estimated % of Sun Glare Affecting Field of Vision	X		1.5	7"	4"	bump	Y
tenter	Weather Conditions PerTIY Cloudy				5"	3"	bump	Y
10 M	Temperature	2.5	5"	3"	bum F	Y		
199	Wind	Spiered 5	Direction (N.S.C.W) SW	3	6"	4"	bumf	N
Aller A	Presside Information below	for ALL and or her attring only observe otos to floring discribe behavior, rop	moni, otherwise leave blank. ctions, att.	3 5	6"	3"	bump	Ŷ
18	Sighting Time Start / End	Start	End	4	5"	4"	bumi	Y
sight	Duration of Sighting			4,5	6"	4"	bum	PY
	Number of Animals	Aduits	Poweniles .	5	5"	3"	bum	PY
liaviar	Behaviors Observed	Sleeping Resting Traveling etc		5.5	6"	3"	bum	PY
aa.	Did Your Activity Change the Animals Behavior	Yes	; / No	6	7"	5'	bumi	y
	Observer to Animal	Dotance	Feet / Yards / Meters	6.5	7"	4 "	bumi	or
inte	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	6"	5''	bum	PV
ette	GPS Econtinates of Observer	GPS/Mile Marke		7.25	6"	4"	bum	PY
Real	Mark on attached map approx location of seal				12			
	Project Activity During Sighting (vehicle type/equipment)			33.4				
cituity	What Actions Were Taken to Mitigate Negative Interaction	1		103 20				
	Duration of Time Operations Impacted				Up of A	141-21-31		
	Notes							

1. C 2. 3. T	Sur observer stops every 0.5 miles and minim Record sighting details for ALL sig ake two snow depth measuremen alternat	vey Protocol: observes 150 m on either side of the um of 5 minutes. ghtings. Take photos of seals or signs nts on the nearest unpacked snow at e sides of the road.	road for a of seals. each stop; psologs@hilcorp.com			Snow depth	
- If a s	a note saying "No seal s	ar day due to inclement weather.			REAL FORM	1000	
	Date	H-16-23			Deepest	Shallowest	Snow characterization If snow is in drifts, (Bumpy estimate how close
•5	urvey Start Time / End Time	12:05	3:10	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)
	Observer Name	Phil Ho	obserd	0.5	5"	3"	bumpy
Sec.	Visibility	Distance	Feet / Yards / Meters / Miles	1	7"	3"	bumpy
all	Estimated % of Sun Glare Affecting Field of Vision	0		1.5	8"	5"	bumpr
uraniter.	Weather Conditions	CIEC/	1	2	6"	4"	bumpy
100	Temperature	- 15	C (F)	2.5	5"	3"	bumpy
H Zal	Wind	N/A	No wind	3	5"	3"	bumpy
	Previde ortoritation below include o	tor 622 and or treathing both observers to beritier discribe behavior, re-	etions, athevesia leave blatk.	3.5	7"	4"	beim PY
the -	Sighting Time Start / End	Start	End	4	6"	4"	bumpy
SPIL	Duration of Sighting		Transmiller	4_5	6"	4"	bumpy.
See See	Number of Animals	Adurs	Avecoms.	5	5"	<u> </u>	buney
Interest er	Behaviors Observed	Sleeping, Resting, Traveling vst		5.5	7"	3"	bumpy
	Did Your Activity Change the Animals Behavior	Ye	s / No	6	7"	5"	bumpy
No.	Observer to Animal	Distance	Feet / Yards / Meters	6.5	6"	3"	bumpy
tante	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	4'	bumpy
015	GPS Coordinates of Observer	GPS/Mile Market		7,25	7"	4	bumpy
E.S.	Mark on attached map approx						
A	Project Activity During Sighting (vehicle type/equipment)						
Activity	What Actions Were Taken to Mitigate Negative Interaction Duration of Time Operations						
C-LC	Notes						

Diserver stops every 0.5 miles and minimum . Record sighting details for ALL sig take two snow depth measuremen alternativ survey was not done on a particuli a note cavine "No ceals	ouserves 150 m on entiter so um of 5 minutes. https://take.photos of seals (hts on the nearest unpacked s e sides of the road. ar day due to inclement weat! urvey due to inclement weat!	or signs of seals. snow at each stop; her, submit a log with her."	Please email this log every survey day to psologs@hilcorp.com			Snow dept1		
Date	117/44/vvv 4-18-2	.3				Shallowast	Snow characterization (Burnov	If snow is in di
Survey Start Time / End Time	12:30	3:	35	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are t another (met
Observer Name	Erin	Moorhe	ad	0.5	5"	3"	L in	my y
Visibility	Distance 10	Feet /	Yards / Meters / Miles	1	7"	<u>4</u> "	Lu	mpy
Estimated % of Sun Glare Affecting Field of Vision	0			1.5	8"	5"	6.	mpy
Weather Conditions	FOR Rain, Snow ME.	'ear		2	6."	4"	60	mpy
Temperature	c VD	2,5	5"	4'	60	mpy		
Wind	3	5"	3	Lu	mpy			
Provide internation before f	for All seal or breathing hole one to further describe before	odoenvetions, strictw stor, reschibris, str.	ise issue blank.	3.5	6"	3'	6	mpy
Sighting Time Start / End	Start	End		4	6"	4	Lu	mpy
Duration of Sighting				4,5	6"	4'	b	npy
Number of Animals	Adults	Juveniles		5	5"	3'	bu	mpy
Behaviors Observed	Sleeping, Rosting, Traveling otc			5.5	7"	5	bi	inpy
Did Your Activity Change the Animals Behavior		Yes / No		6	6"	5'	6 .	mpy
Observer to Animal	Distance	F	eet / Yards / Meters	6,5	6"	3	bu	mpy
Closest Point Animal Approached Road or Activity	Distance	F	eet / Yards / Meters	7	7 "	4	bis	rpy
GPS Coordinates of Observer	GPS/Mde Marker			7.25	7"	4	le lo	mpy
Mark on attached map approx focation of seal								
Project Activity During Sighting (vehicle type/equipment)				1. BOAL				
What Actions Were Taken to Mitigate Negative Interaction Duration of Time Operations								

1. (2 3. 4. If a	Su Observer stops every 0.5 miles and minin 2. Record sighting details for AL s Take two snow depth measureme alternat survey was not done on a particul a note saying "No seal	rvey Protocol: d observes 150 m on either side of ightings. Take photos of seals or sij ints on the nearest unpacked snow te sides of the road. lar day due to inclement weather, survey due to inclement weather.	the road for a gns of seals. r at each stop; submit a log with			Snow dept?		
	Date	4-20-23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•	Survey Start Time / End Time	9:30 Am	1:15 Pm	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Wayee High		0.5	7″	3/2	bur	PY
Contraction of the	Visibility	10 miles	Feet / Yards / Meters Miles	1	7"	51'	bu	mfy
Ha	Estimated % of Sun Glare Affecting Field of Vision	0		1.5	75	611	60	mer
teather	Weather Conditions	Fee Ruin Snow etc		2	64	51	bu	mpy
	Temperature	Temo 10	c \ (F)	2.5	711	45	ber	mpy
語ない	Wind	3	611	411	500	mpy		
	moutos intermetitan brilow includa a	for ALL seel or breathing have also one to further describe behavior.	eventaris, orbitrarian leave blank. raschabil, Str.	3,5	6.51	411	60	my
Bu	Sighting Time Start / End	Start	End	4	6.511	5"	64	rly
sight	Duration of Sighting			4.5	7"	211	bu	mpy
	Number of Animals	Adults	Juvenilles	5	6/2 11	711	6	mpy
thatter	Behaviors Observed	Sineping, Resting, Traveling etc		5.5	511	511	bu	mpy
a l	Did Your Activity Change the Animals Behavior		Yes / No	6	711	411	50	impy
Est.	Observer to Animal	Distance	Feet / Yards / Meters	6.5	511	4/	bu	ump y
ance	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	611	51	64	mry
Dist	GPS Coordinates of Observer	GP3/Mde Marker		7.25	811	511	50	mpy
	Mark on attached map approx							
	Project Activity During Sighting (vehicle type/equipment)							
Autoro	What Actions Were Taken to Mitigate Negative Interaction Duration of Time Operations Impacted							
	Notes	No seal	5					

)bse Re ake	Su erver stops every 0.5 miles ann minin ecord sighting details for ALL si e two snow depth measureme alternat vey was not done on a particul a note saying "No seal	Wey Protocol: § observes 150 m on either side of the i um of 5 minutes. ghtings. Take photos of seals or signs on this on the nearest unpacked snow at e we sides of the road. ar day due to inclement weather, subn survey due to inclement weather."	road for a pf seals. each stop; nit a log with			Snow dept	h	
	Date	4-22- 23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
Surv	rey Start Time / End Time	start N/A	Ind	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Erin M	oorhead	0.5				
	Visibility	lo miles	Feet / Yards / Meters / 📶	1				
Est	Imated % of Sun Glare Affecting Field of Vision	07.		1.5				
	Weather Conditions	For Nam, Snowletc Clear		2				
	Temperature	Temp	c V🕑	2.5				
	Wind LO DHREESING (N.S.E.W)							
	Provide information below	for ALL and or breatiling hole discrete other to further describe behavior, read	tons, attacuite laive blank. 2.0ml, etc.	3.5				
	Sighting Time Start / End	Start	Eod	4				
	Duration of Sighting			4.5				
	Number of Animals	Advits:	Lovensles	5				
	Behaviors Observed	Sleeping, Resting, Traveling etc		5.5				
-	Did Your Activity Change the	Yes	/ No	6				
	Observer to Animal	Oktanice	Feet / Yards / Meters	65				
0	Iosest Point Animal Approached	Distance	Feet / Yards / Meters	7				
-	GPS Coordinates of Observer	GPS/Mile Marker	1	7.25				
-	Mark on attached map approx location of seal							
	Project Activity During Sighting (vehicle type/equipment)							
	What Actions Were Taken to Mitigate Negative Interaction							
	Duration of Time Operations Impacted			品以對常		361 33		
	Notes	Soal sur Polar b	ear resti	not	be	do. Icc	pe d	ne to
		bear of Wildlife	servation replatform.	eport Sigh	wr ting l	s d.	one -Spr	"n Hi'l

1. 3. 4. If a	Si Observer stops every 0.5 miles an mini 2. Record sighting details for ALL s Take two snow depth measurem alterna survey was not done on a particu a note saying "No seal	urvey Protocol: id observes 150 m on either side of the r num of 5 minutes. ightings. Take photos of seals or signs a ents on the nearest unpacked snow at e te sides of the road. Ilar day due to inclement weather, subn survey due to inclement weather."	road for a of seals. each stop; nìt a log with	Please email this log every survey day to psologs@hilcorp.com			Snow depth		
	Date	mm/dd/yyyy 4-24-23 Star	End			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
	Survey Start Time / End Time	8:00 AM		:10 AM	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Wayne Lin	dquis	:F	0.5	7"	4"		
	VIs动用ty	10 miles	Feet / Ya	ards / Meters /Miles	1	7"	5"		
100	Estimated % of Sun Glare Affecting Field of Vision	0			1,5	7"	6"		
Weather	Weather Conditions	Fog. Rain, Snow etc.			2	6"	5"		
	Temperature	10 - 4		C \	2,5	7"	5"		
C North	Wind	Sered 5	Direction (N,S,E,W)	NE	з	6"	4"		
	Provide Information below Include o	for ALL seal or breathing hole observable	ions, scherwise ions, etc.	e Russe Blank.	3.5	6"	4"		
8.0	Sighting Time Start / End	Start:	End		4	6"	5 "		
Staht	Duration of Sighting				4,5	7"	3"		
1 North	Number of Animals	Adults	Juveniles		5	6"	4'	/	
chavier	Behaviors Observed	Sleeping, Resting, Traveling etc			5,5	5"	5"	(
8	Did Your Activity Change the Animals Behavior	Yes	/ No		6	7"	4 '		
	Observer to Animai	Distance	Feet	t / Yards / Meters	6.5	5 "	4	9	
tende	Glosest Point Animal Approached Road or Activity	Distance	Feet	t / Yards / Meters	7	6"	5	11	
als.	GPS Coordinates of Observer	GPS/Mile Marker			7.25	6"	5	9	
R	Mark on attached map approx location of seal								
	Project Activity During Sighting (vehicle type/equipment)								
ettait	What Actions Were Taken to Mitigate Negative Interaction				SEE				
*	Duration of Time Operations Impacted								
	Notes No Seals								

1. 3. 4. if a	St Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alterna survey was not done on a particu a note saving "No seal	Invey Protocol: d observes 150 m on either side of the num of 5 minutes. lightings. Take photos of seals or signs of ents on the nearest unpacked snow at of te sides of the road. lar day due to inclement weather, subr survey due to inclement weather.	road for a of seals. each stop; nit a log with	Please email this log every survey day to psologs@hilcorp.com			Snow dept	a	
	Date	mm/dd/yyyy 4 - 2 6 - 23 Start	End			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
1	Survey Start Time / End Time	3:00 -	6:	00	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Flat, etc)	another (meters)
	Observer Name	Erin Mool	chead	/	0.5	7"	4"	bu	717
100	Visibility	Distance &	Feet / Yards / Meters			9	4 "	6.	inpy
	Estimated % of Sun Glass Affecting Meta of Vision	0			1.5	9"	6"	bu	my
Vestiner	Weather Conditions	Fog. Rain, Snow erc.			2	8*	5"	Lu	mpy
	Fengenture	Temp 🕖		c \6	2.5	-1 P_{11}	5"	bi	rym
100	Wied	Speed 3	Dwestion (N,S,E,V	SE	з	7"	6"	h	umpy
	Provide Information Indox Indixte 1	for 6.1 seal or treatform hale observations to further describe advances, read	ittas, atheneds dens, etc.	ar leave thorn.	3,5	8"	6''	b	inty
Buj	Sighting Time Start / End	Start	End		4	9"	5"	k	umpy
Signt	Countion of Sighting				4.5	8"	4.	k	umpy
A STATE	Number of Animals	Aduits	Juveniles		5	7"	4"	L	hmpy
ehavior	Behaviors Observed	Sleeping, Resting, Traveling etc			5,5	3"	3 "	k	nmpy
	Did Your Activity Change the Animals Behavior	Yes	/ No		6	6"	4"	k	umpy
	Obselver to Animal	Dataoce	Fee	et / Yards / Meters	6.5	4"	<i>4</i> ^{<i>u</i>}	k	umpy
ance	Closest Point Animal Approached Road or Activity	Distance	Fee	et / Yards / Meters	7	6	5 "	k	umpy
iolist	GPS Coordinates of Observer	GPS/Mile Marker			7.25	7"	4"	ł	sumply
R. F.	Mark on attached map approx location of seal								
and a	Project Activity During Sighting {vehicle type/equipment}				同時とな				
Activity	What Actions Were Taken to Mitigate Negative Interaction								
	Impacted		_		and Asian	Т. <u>-</u> Т	- N 1	1 - C - S - C	
	Notes	NO Se	ra(s ob	serve	d			

1. 3. 4. If a	Si Observer stops every 0.5 mlles an minh 2. Record sighting details for ALL Take two snow depth measurem aiterna survey was not done on a particu a note saying "No seal	urvey Protocol: Id observes 150 m on either side of the mum of 5 minutes. Sightings. Take photos of seals or signs ents on the nearest unpacked snow at of te sides of the road. Ilar day due to inclement weather, sub: survey due to inclement weather."	road for a of seals. each stop; mit a log with	Please email this log every survey day to psologs@hilcorp.com			Snow dept	a	
	Date	4 -2 8-23	Fnd			Deepest	Shallowest	Snow characterization (Bumpy	If snow Is In drifts, estimate how close
•	Survey Start Time / End Time	3:00	6:0	0	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Erin M	loorh	ead	0.5	7"	5″		brompy
Sec.	Ajžipilità	Dostanze (0	Feet / Y	'ards / Meters /	I	8"	5"		bumpy
NH D	Estimated % of Sun Glare Affecting Field of Vision	()*10			1.5	8	5 "		bumpy
Veather	Weather Conditions	For Rain, Snew etc. Clear			2	12"	5″		bumpy
	Temperature	Temp	с \ 🕼		2.5	9"	6"		bumpy
No. H	Wind	Speed 4	Direction (N,S,E,W)		3	7	6"		bumpy
	Provide information below reducted	for this soul or treatiling tools observed open to further describe behavior, name	ions, otherwas	ne tanne blank.	3.5	8"	7 ''		bumpy
Buj	Sighting Time Start / Bod	Start	End		4	9"	6"		bungy
Sight	Ouration of Sighting		4_5	8"	4 "		bumpy		
100	Number of Animals	Aduits	Juveniles		5	7"	5 "		bumpy
chardor	Behaviors Observed	Sleeping, Resting, Traveling etc			5,5	4"	3 "		bumpy
	Did Your Activity Change the Animals Behavior	Yes	/ No		6	6"	5"		bumpy
	Observer, to Animal	Distance	Fee	t / Yards / Meters	6.5	5"	4 1		bumpy
ance	Closest Point Animal Approached Road or Activity	Distance	Fee	t / Yards / Meters	7	6"	5 "		bumpy
ole	GPS Coordinates of Observer	GDS/Mile Marker			7.25	7"	6"		bumpy
	Mark on attached map approx								
	Project Activity During Sighting (vehicle type/equipment)								
stinity	What Actions Were Taken to Mitigate Negative Interaction				R.L. S.L.				
	Duration of Time Operations Impacted					10.40	1 6 1		
	Notes	1	Və	Seals	66	serv	ed		

1. 3. 4. If a	St Observer stops every 0.5 miles an minir 2. Record sighting details for ALL s Take two snow depth measurem alterna survey was not done on a particu a note saying "No seal	Survey Protocol: erver stops every 0.5 miles and observes 150 m on either side of the road for a minimum of 5 minutes. ecord sighting details for ALL sightings. Take photos of seals or signs of seals. e two snow depth measurements on the nearest unpacked snow at each stop; alternate sides of the road. vey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to Inclement weather."					Snow dept	h	
	Date	14-30	7-23			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•	Survey Start Time / End Time	star 7:00	int 10	:00	Mile Marker	Snow Depth {meters/cm}	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
4	Observer Name	Erin	Moor	head	0,5	6"	6"		bmmp
1000	visibility	Distance	Feet / Y	ards / Meters			5"		bumpy
inde.	fistimated % of Sun Glare Affecting Field of Viston	0''.				8"	5"		bumpy
leather	Weather Conditions	Fog. Rain, Snow etc. Fog			2	8"	5″		bumpy
	Temperature	Temp 12		c \ 🕐	2.5	10"	77		bumpy
	Wind	Speed 19	Direction IN, S.E.W	NE	з	7"	6"		bumpy
	Provide Information Italian Include 1	for this shall be broathing tools disc over the further describe behavior, i	evetions, asherwis mentions, art	e indek blande	3,5	8"	7"		burney
-	Sighting Time Start / End	Start	End		4	9"	5 "		burpy
sight	Ouration of Sighting				4.5	8"	4"		bumpy
	Number of Animals	Aduits	hovendes		5	8"	$\mathcal{U}^{"}$		bumpy
chardor	Behaviors Observed	Sleeping, Resting, Traveling etc			5.5	5"	3 "		bunpy
	Did Your Activity Change the Animals Behavior	Y	′es / No		6	6"	6"		bumpy
	🤌 Observer to Animal	Dataese	Fee	t / Yards / Meters	6.5	5"	4"		bumpy
anne	Closest Point Animal Approached Road or Activity	Distance	Fee	t / Yards / Meters	7	6.	5		bumpy
Dist	GPS Coordinates of Observer	GPS/Mile Marker			7.25	7	5 "		bumpy
	Mark on attached map approx location of seal				WENT	12-2-5			"
	Project Activity During Sighting (vehicle type/equipment)								
tetlaite	What Actions Were Taken to Mitigate Negative Interaction				Star Par				
	Duration of Time Operations Impacted								
	Notes	No	s Se	eals	obser	ved			

1. C 2 3. T 4. If a s	Su beerver stops every 0.5 miles minin Record sighting details for ALL s ake two snow depth measureme alterna urvey was not done on a particu a note saying "No seal	Invey Protocol: d observes 150 m on either side of the num of 5 minutes. ightings. Take photos of seals or signs ents on the nearest unpacked snow at te sides of the road. lar day due to inclement weather, sub survey due to inclement weather."	road for a of seals. each stop; mit a log with	Please email this log every survey day to psologs@hilcorp.com		Snow depth			
	Date	5-2-2.	3			Deenest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•\$	orvey Start Time / End Time	2:00	5	:00	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil HU	bba	rd	0,5	G	4"		bumpy
	Visibility	Distance 1/2	Feet / Y	/ards / Meters / Alles	1	7"	4"		bumpy
	Estimated % of Sun Glare Affecting Figld of Vision	0%			1.5	7"	5"		bumpy
Ventter	Westher Conditions	FOR REINS SHOW			2	7"	4"		bumpy
	Temperature	1emp 19		c 🕑	2,5	8"	6"		bumpy
1	Wind	Speed 2.2 KT	Direction (R.S.E.)	NÉ	з	8"	5"		bumpy
	Provide intermation balow Include 1	for deli seal or breathing hule diserve notes to further describe behavior, me	cions, ciferrai clions, etc.	er lasve blam.	3,5	8" (111		bumpy
	Sighting Time Start / Eod	Start	End		4	7"	5"		bumpy
sight	Duration of Sighting				4_5	8"	4"		bumpy
	Number of Animals	Adults :	Juvenius		5	8"	411		bum pil
abaylor	Behaviors Observed	Sleeping, Resting, Fraveling etc.,			5.5	6"	5"		bumpy
8	Did Your Activity Change the Animals Behavior	Yes / No			6	7"	5"		bumpy
	Observer to Animal	Distance.	Fe	et / Yards / Meters	65	6"	4"		bumpy
ance	Gosest Point Animal Approached Road or Activity	Distance	Fee	et / Yards / Meters	7	7"	6"		bumpy
Ditte	GPS Coordinates of Observer	GP3/Mile Marker			7.25	6"	5"		bumpy
	Mark on attached map approx location of seal					e suite		12.24	
1 and	Project Activity During Sighting (vehicle type/equipment)				1. Sector				
ethous	What Actions Were Taken to Mitigate Negative Interaction								
-	Duration of Time Operations Impacted						1111		
	Notes	No secis	: Ob.	served					

1. 3. 4. If a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALL s Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	rvey Protocol: d observes 150 m on either side of the num of 5 minutes. ightings. Take photos of seals or signs o ents on the nearest unpacked snow at e te sides of the road. lar day due to inclement weather, subr survey due to Inclement weather."	road for a of seals. each stop; nit a log with	his log Jay to rp.com				
~	Date	5-4-23			Dessart	Shallowest	Snow characterization (Burney	If snow is in drifts,
•	Survey Start Thme / End Time	Start 2:15	5:15	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hubb	ord	0.5	6"	5"		humpy
12	Visibility	Distance	Feet / Yards / Meters / Miles	1	6"	4 "		bompy
	Estimated % of Sun Glare Affecting Field of Vision	0%	0 %			4"		bomer
Weather	Wanthur Conditions	For Rain Snow etc.		2	7"	4"		bumey
	Tempurature	ZY	c 🕑	2,5	7"	6"		bumpy
合い	Wind	Speed 5KT	Direction (N.S,E,W)	3	8"	6"		burely
	Provide information below Include i	for ALL seel or teactfing hole observed rates to further describe bolication room	ions, otherwise lower blank. News, etc.	3.5	7"	4"		bumey
-	Sighting Time Start / End	Start	End	4	7"	411		bumer
Stehl	Durintian of Sighting			4.5	8"	5"		bunty
No.	Number of Animals	Adults	lwenies	5	6"	5"		bumpy
charder	Behaviors Observed	Sleeping, Resting, Traveling etc.		5,5	7"	5"		bumpy
8	Did Your Activity Change the Animals Behavior	Yes	/ No	6	8"	6"		buney
24	Observer to Balmal.	Distance	Feet / Yards / Meters		7"	4"		buney
nte	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7	7"	5"		bungy
olete	GPS Coordinates of Observer	GPS/Mile Marker		7.25	5"	4"		bumpy
	Mark on attached map approx			1.23	Stander.			1857.25
100	Project Activity During Sighting			CL SNA				
vibity	What Actions Were Taken to							
a.	Duration of Time Operations			100				a still of the
	Notes	I seal mile I seal mile	marker 1.0 marker 7.0	7 15	o m M		÷ :	

1 2 3. 4. If a	St Observer stops every 0.5 miles an minin 2. Record sighting details for ALL 2. Take two snow depth measureme alterna survey was not done on a particu a note saying "No seal	Saow depth					
	Date	5-4-23			Deenest	Shallowest	Snow characterization If snow Is in drifts, (Bumpy estimate how close
•	Survey Start Time / End Time	Star 2:15	5:15	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform the peaks are to one Flat, etc) another (meters)
	Observer Name	Phil Hubb	ard	0.5	6"	5"	humpy
	Visibility	Distance	Feet / Yards / Meters /	1	6"	4 "	buinpy
	Estimated % of Sun Glare Affecting Field of Vision	0%		1.5	7"	4"	bomer
Weather	Weather Conditions	For Bain Snow etc.	12	2	7″	4"	bumpy
	Temperature	Z4	C F	2.5	7"	6"	bumpy
	Wind	Speed 5KT	Direction (N.S.E.W)	3	8"	6"	bum Py
1	Provide information todaw Include a	for ALL beal or breathing hole observe obsite to further describe behavior, rais	claup, entrenisier laure blank. clians, etc.	3,5	7"	4"	bum PY
	Sighting Time Start / End	2:30 \$ 4:50	2:40 \$ 5:00	4	7"	411	bumer
sigh	Duration of Sighting	10 min - 1	OMIN	4.5	8"	5"	bunty
	Number of Animals	Adults	Juveniles	5	6"	5"	bumpy
ie howie	Behaviors Observed	Bleeping, Resting, Traveling etc. RESTINS / R	esting	5.5	7"	5"	bunpy
	Did Your Activity Change the Animals 8ehavior	Yes	/ 💿	6	8″	6"	buney
	Observer to Animal	406 / 300	Feet / Yards / Meter	6.5	7"	4"	bumpy
anne	Glosest Point Animal Approached Road or Activity	400 / 300	Feet / Yards / theters	7	7"	5"	burn PY
ala	GPS Coordinates of Observer	mile 1 m	ile 7	7,25	5"	4"	bumpy
Å	Mark on attached map approx location of seal		······································	1.22			
	Project Activity During Sighting (vehicle type/equipment)	Scal Sulvey -	TUCKel SNO CA	-			
Activity	What Actions Were Taken to Mitigate Negative Interaction	NONE		語語の記述			
	Duration of Time Operations Impacted	NIA			18 A 2		
	Notes	1 seal mile	marker 1.0 marker 7.0	7 15	o m	3	

+

1. ; 3.	Su Observer stops every 0.5 miles an minir 2. Record sighting details for ALL Take two snow depth measurem alterna survey was not done on a particu a note saying "No seal "No seal	Invey Protocol: d observes 150 m on either sld num of 5 minutes. lightings. Take photos of seals a ents on the nearest unpacked s te sides of the road. I ar day due to inclement weat! survey due to inclement weat!	le of the road for a or signs of seals. snow at each stop; her, submit a log wi her."	Please email this log every survey day to psologs@hilcorp.com	snow depth				
	Date	5-6-23	3			Deenest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
•	iurvey Start Time / End Time	Start 12:00	End 3:	00	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil	HUBBC	rd	0.5	5"	4"		bumey
ALC A	Visibility	Distance 12	Feet	/ Yards / Meters	1	6"	4"		bumey
	Estimated % of Sun Glare Affecting Field of Vision	0%			1.5	6"	5"		buner
Varther	Weather Conditions	Fog. Rain. Snow etc			2	5"	4"		buner
	Femperatura	7emp 28		C \	2.5	6"	4"		bunk
000	Wind	Speed	Direction (N,S	N/A	з	6"	5"	55	buntt
	Provide information below Influde (for ALL seaf or breathing hate o often to further describe behavior	oowervacions, ather ear, reactions, atc.	wise loave blane.	3.5	7"	511		berney
ing -	Sighting Time Start / End	Start	End		4	6"	4"		bumpy
staht	Duration of Sighting			-	4.5	7"	6"		bumey
Rev of	Number of Animals	iAdults	Juveniles		S	6"	5"		bumer
eliavior	Behaviors Observed	Sleeping, Resting, Traveling etc			5,5	7"	5"		bumpy
m	Did Your Activity Change the Animals Behavior		Yes / No		6	7"	5"		buner
Contra la	Chierren to finimal	Ostance		Feet / Yards / Meters	65	6"	4"		buner
intee	Closest Point Animal Approached Road or Activity	Distance		Feet / Yards / Meters	7	6"	5"		bumer
Dity	GPS Coordinates of Observer	GPS/Mile Marker			7 75	5"	4"		bump.1
-	Mark on attached map approx				1.63			1. S.	
	Project Activity During Sighting								
ethnity	What Actions Were Taken to Mitigate Negative Interaction								
A	Duration of Time Operations Impacted				Contraction of the				
	Notes	Poor vis	15:174	- No sec	is obse	sved			

1. (2 3. ⁻ Ifa	Survey Protocol: 1. Observer stops every 0.5 miles and observes 150 m on either side of the road for a minimum of 5 minutes. 2. Record sighting details for ALL sightings. Take photos of seals or signs of seals. 3. Take two snow depth measurements on the nearest unpacked snow, at each stop; alternate sides of the road. If a survey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to inclement weather." Please email this log every survey day to psologs@hilcorp.com				Snow depth					
	Date	5-8-23	Ind		Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close		
•5	Survey Start Time / End Time			Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)		
	Observer Name			0.5						
	Visibility	L'/4 mile	Feet / Yards / Meters / Miles	11						
	Estimated % of Sus Glare Affecting Fight of Vision	101 0		1,5						
reatition	Weather Conditions	Fog. Rain, Snow etc. FOS		2						
	Temperature	Temp	C \ F	2.5						
	Wibd	Speed	Direction (N.S.E.W)	3						
	Provide Information below t	for ALL stat of Desisting hole powerves don't to forther describe infrantor, even	ions, attrictivene lenvel bjana. Livera, Mill	3,5						
1	Sighting Time Start / End	Start	End	. 4						
Sight	Duration of Sighting		.1.	4,5						
-	Number of Animais	Adults	Assentes	5						
thaviar	Behaviors Observed	Slooping Ansting, Frankling etc	1	5.5						
ĕ	Did Your Activity Change the Animals Behavior	Yes	/ No	6						
TE I	ja Göderver te Animal	Distance	Feet / Yards / Meters	65						
ance	Closest Point Animal Approached Road or Activity	Distance	Feet / Yards / Meters	7						
0110	GPS Coordinates of Observer	GP5/Mile Marker		7.25						
No.	Mark on attached map approx location of seal									
Activity	Project Activity During Sighting {vehicle type/equipment} What Actions Were Taken to Mitigate Negative Interaction									
4	Duration of Time Operations Impacted			And Street			200300000	100		
	Notes	NO SURVEY Den	Today due lse Fos.	TO II - Visi	lcieme biit)	ENT 1	Neath <u>ss th</u>	AN YUW		

1. C 2. 3. T 4. If a s	Su bserver stops every 0.5 miles an minin Record sighting details for ALL s ake two snow depth measureme alternal urvey was not done on a particul a note saying "No seal	oad for a f seals. ach stop; hit a log with	Snow depth					
	Date	5-10-23			Deenect	Shallowest	Snow characterization (Bumny	If snow is in drifts, estimate how close
•S	arvey Start Time / End Time	slart 11:45	2:35	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)) Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hubbe	ard	0.5	4"	3″	bumpy	
I SAN	Visibility	Distance	Feet / Yards / Meters / Miles	1	5"	3''	bumpy	
	Estimated % of Sun Glare Affecting Field of Vision	0%	1.5	4"	3"	be mey		
Meather	Weather Conditions	FOR RAIN SHOW HEL		2	6"	4"	bumpy	
	Temperature	2.5	C NF	2,5	6"	4″_	bumpy	
	Wind	O.S	Direction (R.S.E.W)	3	5"	3"	bumpy	
	Provide Information below include 1	for Als and or branthing tidle observate stas to further enarrhy beforefor, mass	ons, uzherwize izave blank. Izava, etc.	3.5	5"	411	bampy	
	Sighting Time Start / End	start //:45	2:35	4	6"	4″	bumpy	
1	Duration of Sighting	7 minutes Pe	1 SiShTINS	4.5	6"	3″	bumpy	
100	Number of Animals	adules 5	Iuveniles	5	5"	4"	bumpy	
Num	Behaviors Observed	Steening Resting Traveling etc.		5.5	5"	4″	bumpy	
	Did Your Activity Change the Animals Behavior	Yes	1 (10)	6	6"	3″	bungy	
	Observer to Animal	Distance	Feet / Yards / Meters		6"	4"	Lungy	1
100	Closest Point Animal Approached	Distance	Feet / Yards Meters	6.5	5"	4"	bump	Y
Dista	GPS Coordinates of Observer	GP5/Mile Market	(2) 65 75	7	5"	4"	bunp	/
	Mark on attached map approx location of stal	The Star	21, 2.0, 110	7.25	1.415			
2	Project Activity During Sighting {vehicle type/equipment}	Survey, SNO	WCAT					
Activ	Mitigate Negative Interaction Duration of Time Operations	NONE						
	Notes Notes				TWER	1 M	ile 1.5	- 7.5.
					5.5	, 1 Ac	DUIT 1	JUVENILE
				ve 11	Lunde	$\gamma <$	2 MA	
		CIUSEI HN	Mai 10 F	191,	w nz	20		

1. 3. 4. If a	Su Observer stops every 0.5 miles an minin 2. Record sighting details for ALL 5 Take two snow depth measureme alternai survey was not done on a particu a note saying "No seal	Snow depth						
	Date	5-12-23	1011		Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close
à	Survey Start Time / End Time	12:40	3:55	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil Hal	bbard	0.5	4"	2″	bumpy	
	Visibility	Distance 5	Feet / Yards / Meters / Miles	1	411	3"	bumpy	
	Estimated % of Sun Glare Aflecting Field of Vision	0%		1,5	3"	2″	bumpy -	
Vesities	Weather Conditions	FOR HAVE SHOW HELL		2	5"	3"	bumpy	
	Temperatura	Temp JO	c (F)	2.5	5"	4″	bompy	
	Wind	CAIM	N/A	3	4"	2"	bumpy	
	Provide Information Seture Include 1	for ALL seal or breathing itols observed star to further describe behavior, read	an, atherwise issue blank. Ians, etc.	3,5	5"	3/1	bompy	
ani	Sighting Time Start / End	Start 2:50	3:40	4	7"	4"	bumpy	
Mare	Duration of Sighting	10 Min Per sisi	TINS	4.5	5''	3″	bumpy	
	Number of Animals	Adults 3	Juveniles	5	7"	3″	bumpy	
ehavlor	Behaviors Observed	Resting Resting Traveling elc-		5.5	6"	5"	bumpy	
	Did Your Activity Change the Animals Behavior	Yes	/ No	6	5"	4 "	bompy	
	Observar to Animal	Distance 250	Feet / Yards / Neters	6.5	7"	4 "	bompy	(
ante	Closest Point Animal Approached Road or Activity	Detance 2.50	Feet / Yards / Meters	7	5"	3″	bumpy	
olie	GPS Coordinates of Observer	GPS/Mile Marker M:16 5.3 (2)	mile 7.5 (1)	7.25	5"	411	bompy	/
	Mark on attached map approx location of seal						1878 Jah	1000
-	Project Activity During Sighting (vehicle type/equipment)	SUIVEN, SNO-CAT		S. A.				
Activity	What Actions Were Taken to Mitigate Negative Interaction	NONE						
	Duration of Time Operations Impacted	N/A				11. 2. 55		
	Notes	2 Seals at	mile 5.3,	1 Sec.)	GT P	Mile	<i>t.5</i>	

1. 3. 4. If a	Su Dbserver stops every 0.5 miles am minin 2. Record sighting details for ALL s Take two snow depth measureme alternal survey was not done on a particul a note saying "No seal	Snow depth						
	Date	5'-14-23				Challenset	Snow characterization	If snow is in drifts,
•1	Gorvey Start Time / End Time	12:05	End 3:15	Mile Marker	Deepest Snow Depth (meters/cm)	Snallowest Snow depth (meters/cm)	(Bumpy Uniform Flat, etc)	the peaks are to one another (meters)
	Observer Name	Phil HUUS	ocrd	0.5	3"	2"	bumry	
	Visibility	Distance	Feet / Yards / Meters / Hiles	1	3"	Z''	bumpy	
A.S.	Estimated % of Sun Glare Affecting Field of Vision	0%		1.5	3"	2"	SMOOT	4
Weather	Weather Conditions	Fog. Rain, Snow etc PEITIY CIOC	PEITLY CLOUDY			z"	SMOOTH	ı
	Tempetature	^{Temp} 39	c 🕑	2.5	511	3''	SMOOTU	
	Wind	Speed 10	Direction (N,S,E,W)	3	3"	2″	Smooil	
	wavida information before Include n	by ALL seal or breathing hole places at new to further disorder billioner, read	lana, atherwise leave black. Gene, etc.	3.5	5"	3″	SUMPY	
anne.	Sighting Time Start / End	12:30	3:00	4	6"	4 ''	bump	Υ
SIGN	Curation of Signaling.	5 min Persis	shiinss	4.5	5"	4"	bumpy	/
	Number of Animals	Adults 9	lawerines	5	6"	34	SMOOT	1
Seltavlor	Behaviors Observed	Resting Traveling etc.		5,5	5"	4"	SMOOTH	!
N.C.S.	Did Your Activity Change the Animals Behavior	Yes	/ 100	6	4"	3″	SMOOTH	ł
	Chatries to Animal		Feet / Yards / Meter	6.5	6"	4 "	bumpy	•
tance	Closest Point Animal Approached Road or Activity	7200	Feet / Yards / Vieters	7	5"	3″	bump	¥
Dis	GPS Coordinates of Observer	GP5/Mile Marker	3.4, 5.5(2) 7.	5 (2)	5"	3"	bumpy	1
	Mark on attached map approx location of seal		a <u>a</u>					
27	Project Activity During Sighting (vehicle type/equipment)	Survey, SNO	-CRT					
Actio	What Actions Were Taken to Mitigate Negative Interaction	NONI						
	Impacted	NIN				11.544	TRUPPO	12.203
	Notes	Irail SMOOTH	1 seal at 2.0,2	2.8,3.4 -	- 25e	als a	T 5.5 f	7.5

1 3. 4. 1f a	Su Observer stops every 0.5 miles ann minim 2. Record sighting details for ALL si Take two snow depth measureme alternat survey was not done on a particul a note saying "No seal	rvey Protocol: d observes 150 m on either side of the num of 5 minutes. giftings. Take photos of seals or signs of nts on the nearest unpacked snow at of e sides of the road. ar day due to inclement weather, subr survey due to inclement weather."	road for a of seals. each stop; mit a log with			Snow dept	h	
	Date	5-16-23 Start	End Din T		Deepest	Shallowest	Snow characterization (Bumpy Liniform	If snow is in drifts, estimate how close the peaks are to one
	Survey Start Time / End Time	12:33	3.53	Mile Marker	(meters/cm)	(meters/cm)	Flat, etc)	another (meters)
	Observer Name	Erin M	oorhead	0.5	3"	2''	bumpy	/
100	Wisibility	Distance 2 miles	Feet / Yards / Meters Miles	1	3."	3"	bumpy	(
	Estimated % of Son Glare Affecting Field of Vision	0 %		1.5	3"	211	smooth	
Vesther	Weather Conditions	Fee Hain Show etc. FOG	2	2	4"	3"	smooth	
A	Temperature	7emp 20	c \ 🙆	2.5	5"	3"	Smao th	
	Wind	Speed	NE	3	3"	3.11	Smooth	
	Provide Information balow (Anglasia in	for AcL anal or breathing tote observed ones to harmer deported behavior, mad	ters, otherwise (save disn). Since, sto	3.5	5"	4"	bumpy	
an	Sighting Time Start / End	12:35	3:35	4	6"	4"	bumpy	
Sign	Duration of Sighting	5 min 1	per instance	4.5	514	3''	bumpy	
100	Number of Animals	Adults 3	swentes	5	6"	4"	Smooth	
chavtor	Behaviors Observed	Sleeping, Resting, Traveling etc Resting	2	5,5	4"	3''	smooth	
8	Did Your Activity Change the Animals Behavior	Yes	/ 😡	6	- 4"	4"	Smouth	
and the second	Observer to Animal	Distance 7200	Feet / Yards / Neters	6.5	6"	4"	bumpy	
aiteo	Closest Point Animal Approached Road or Activity	Distance 7 200	Feet / Yards / Vieters	7	5`'	3"	Lunpy	
Dist	GPS Coordinates of Observer	GPS/Mile Marker		7.25	4"	3, "	lemper	
30	Mark on attached map approx location of seal			NEL WIT				
1	Project Activity During Sighting (vehicle type/equipment)	Survey 5	no-cat					
lettulty	What Actions Were Taken to Mitigate Negative Interaction	None	2					
	Duration of Time Operations Impacted	N/A			4-14-23			
	Notes	2 seals at Iseal at	mile 5.5 mile 2.0	5	5			

1. 3. 4. If a	Survey Protocol: 1. Observer stops every 0.5 miles and observes 150 m on either side of the road for a minimum of 5 minutes. 2. Record sighting details for ALL sightings. Take photos of seals or signs of seals. 3. Take two snow depth measurements on the nearest unpacked snow at each stop; alternate sides of the road. If a survey was not done on a particular day due to inclement weather, submit a log with a note saying "No seal survey due to inclement weather."				Snow depth				
	Date	mm/dd/yyyy 5-18-22			Deepest	Shallowest	Snow characterization (Bumpy	If snow is in drifts, estimate how close	
•	Survey Start Time / End Time	9:00	12:00	Mile Marker	Snow Depth (meters/cm)	Snow depth (meters/cm)	Uniform Flat, etc)	the peaks are to one another (meters)	
	Observer Name	Erin 1	Moorhead	0.5	3"	2"	bungy		
	Visipatry	Distance 10	Feet / Yards / Meters / Mile	1	3"	3"	bumpy	r	
	Estimated % of Sue Glare Attacting		1,5	4"	4"	s moot	4		
Veather	Watther Canditions For Rain Snow etc. Clear			2	4"	4°	Smoot	L	
	Tempetature	Temp 29	c \ 🖸	2.5	5''	4"	Smooth		
1	Wind	Speed K	Direction (N.S.E.W)	3	3"	.3''	S mouth		
	Provide Infernitation below monute or	tor ALL and or breathing hits observe one to further describe behavior, ma	villons, otherwise issue Island. Actions, etc.	3.5	5"	3''	bungt	,	
-	Slighting Time Start / End	Start 9: 50	IZ:00	4	6"	4"	6 ump	1	
Sight	Curation of Sighting	5 mln por	in stance	4.5	5"	4"	bumpy		
1	Number of Animals	Adults 6	luvendes	5	5."	4"	S Mooth	•	
ahavior	Behaviors Observed	Sleeping Resting Traveling etc.		5.5	4"	3"	Smooth		
B	Did Your Activity Change the Animals Behavior	J	s / No	6	4"	3"	Smoot	5	
Ser.	Citizencer lio Animai	7200	Feet / Yards / Meters	6.5	5'	4"	Ьнтр	Y	
mea	Closest Point Animal Approached Road or Activity	Distance: >2.60	Feet / Yards / Meters	7	5"	411	bump		
otto	GPS Coordinates of Observer	GPS/Mile Marker 1.5, 200, 3.4	1.5.5(2),7.5	7,25	Y"	3"	6 mp	1	
	Mark on attached map approx location of seal		1 - 1				and the A		
	Project Activity During Sighting (vehicle type/equipment)	Survey Sn	iow cat						
ethuite	What Actions Were Taken to None			e en se V					
*	Duration of Time Operations	N/A		1742	1214 8			2201	
	Notes N/A Notes Notes N/A Notes Z seal @ 5.5				5,7,	5			