

Oil-Spill Risk Analysis: Beaufort Sea Planning Area, Sales 186, 195, and 202



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Oil-Spill Risk Analysis: Beaufort Sea Planning Area, Sales 186, 195, and 202

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Introduction

The Federal Government plans to offer U.S. Outer Continental Shelf (OCS) lands in the Beaufort Sea Planning Area for oil and gas leasing. Because oil spills may occur from activities associated with offshore oil exploration, production, and transportation resulting from these lease sales, the Minerals Management Service (MMS) conducts a formal oil-spill risk analysis (OSRA) to support the environmental impact statement (EIS) completed prior to conducting the proposed leasing of this area. This report summarizes results of that analysis, the objective of which is to estimate the risk of oil-spill contact to sensitive offshore and onshore environmental resources and socioeconomic features from oil spills accidentally occurring from OCS activities.

The occurrence of oil spills is fundamentally a matter of probability. There is no certainty regarding the amount of oil that would be produced, or the size or likelihood of a spill that would occur, during the estimated life of a given lease sale. Neither can the winds and ocean currents that transport oil spills be known for certain. A probabilistic event such as an oil-spill occurrence or oil-spill contact to an environmentally sensitive area cannot be predicted, only an estimate of its likelihood (its probability) can be quantified.

The OSRA was conducted in three parts corresponding to different aspects of the overall problem.

- (1) the probability of oil-spill occurrence, which is based on spill rates derived from historic data and on estimated volumes of oil produced and transported;
- (2) the trajectories of oil spills from hypothetical spill locations to locations of various environmental resources, which are simulated using the OSRA Model (Smith et al., 1982); and
- (3) the combination of results of the first two to estimate the overall oil-spill risk if there is oil development.

This report is available from the MMS's Internet site (<http://www.mms.gov/itd/index.htm>).

Summary of the Proposed Action

The proposed action is to lease OCS lands in the Beaufort Sea Planning Area. As shown in figure 1, the study area for this analysis, which extends from latitudes 68.0° N. to 74.0° N. and from longitudes 134.0° W. to 176.0° W., defines the geographic boundaries that encompass the environmental resources at risk from a hypothetical oil spill from OCS operations in the lease areas. Although few trajectories were likely to extend beyond the borders of the study area within 360 days after release (the maximum elapsed time considered), we have tracked and tabulated spills that would travel beyond the open-ocean boundaries. These trajectories could contact land or other environmental resources outside the study area.

The proposed lease area was divided into 18 launch areas offshore (fig. 1). These launch areas (LA1-LA18) reflect the technological requirements and related physical and economic

impacts as a consequence of the oil and gas potential, exploration and development activities, and lease terms unique to each.

The transportation scenario assumes that the crude oil produced in LA1 through LA18 will be transported by pipeline to shore with potential landfall locations chosen based on educated guesses (fig.2). These hypothetical offshore pipeline route segments (P1-P13) are used to determine spill risks from oil transportation.

Summary of the Alternatives

Only alternatives to the proposed action that were judged to be “economic” were analyzed in the OSRA. The four alternatives analyzed are the Barrow Subsistence Whale Deferral (fig. 3), Nuiqsut Subsistence Whale Deferral (fig. 4), Kaktovik Subsistence Whale Deferral (fig. 5), and Eastern Deferral (fig. 6). These alternatives were analyzed by using the conditional and combined probabilities (representing oil-spill occurrence and contact) relevant to only those portions of the hypothetical launch areas that overlay the respective areas—the remaining nondeferred areas.

Framework of the Analysis

The OSRA depends not only on the meteorological and geographical conditions of the study area but also on the environmental resources that are present and the estimated volumes of oil resources that are assumed to be discovered, produced, and transported.

Hypothetical Spill Locations

The OSRA Model initiated hypothetical oil-spill trajectories uniformly in space and time from within each launch area, as shown in figure 1. At one-fifteenth-degree intervals in the north-south direction (about 7.5 km) and one-fifth-degree intervals in the east-west direction (about 7.6 km), the model launched a trajectory every 2 days. At this resolution, there were 735 total launch points in space, grouped into 18 launch areas, and a total of 2,700 oil-spill trajectories were launched from each spatial grid point over a period of 15 years. The spatial resolution of the trajectory simulations was well within the spatial resolution of the input data, and the interval of time between releases was sufficiently short to sample weather-scale changes in the input winds (Price et al., 2002).

The sensitivity tests on the OSRA Model (Price et al., 2002) indicated that, statistically, the above-mentioned spatial resolution and time resolution are sufficient to represent the spatial and time variations of the particle trajectories in the area.

Environmental Resources

The environmental resources considered in this analysis were selected by MMS analysts in the Alaska OCS Region. The analysts used geographic digital information on the biological, physical, and socioeconomic resources that could be exposed to contact from OCS oil spills to create maps of resource locations vulnerable to oil-spill impact. These maps (figs. A-1 through A-11) depict locations to be analyzed by the OSRA Model, representing either the locations of onshore environmental, social, or cultural resource habitats, or the surface waters overlying or surrounding offshore environmental features.

All onshore, coastal environmental resource locations were represented by one or more partitions of the coastline, herein called land segments (fig. 7). To create these land segments, the study area coastline was divided into 66 equidistant land segments of approximately 15-mile (25-km) lengths. The partitions were formed by creating straight lines between two points projected onto the coast; therefore, the actual miles of shoreline represented by each land segment may be greater than 15 miles, depending upon the complexity of the coastal area.

A list of the environmental resources and socioeconomic features examined in this OSRA and the figures illustrating their locations is given below.

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Listing of Environmental Resources

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Listing of Environmental Resources

Figure

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Estimated Volume of Oil Resources

For this analysis, both benefits and risks are functions of the volume of oil and are mutually dependent. For example, greater volumes of oil are associated with greater economic benefits as well as greater risks. If the benefits are evaluated by assuming production of a specific amount of oil, then the corresponding risks should be stated conditionally, such as “the risks are . . . , given that the volume is” Any statements about the likelihood of a particular volume of oil being developed also apply to the likelihood of the corresponding benefits and risks.

The projected life for a proposed lease sale in the study area is assumed to be 30 years. This is based on averages for time required for exploration, development, production life, and abandonment for leases. The projected oil production estimates (in billion barrels [Bbbl]) for the proposed lease sale are as follows:

<u>Proposed Action</u>	<u>Estimated Production (Bbbl)</u>	<u>Analysis Period</u>
Proposed Action	0.460	30 years
Barrow Subsistence Whale Deferral	0.456	30 years
Nuiqsut Subsistence Whale Deferral	0.436	30 years
Kaktovik Subsistence Whale Deferral	0.447	30 years
Eastern Deferral	0.446	30 years

Oil-Spill Risk Analysis

The OSRA was conducted in three parts corresponding to different aspects of the overall problem: (1) the probability of oil-spill occurrence, (2) the trajectories of oil spills from hypothetical spill locations to various environmental resources, and (3) a combination of the first two to estimate the overall oil-spill risk of combined occurrence and contact if there is oil development.

Risk analyses may be characterized as “hazard-based” or “risk-based.” A hazard-based analysis examines possible events regardless of their low (or high) likelihood. For example, a potential impact would not lose significance because the risk has been reduced due to an increase in the level of control, such as engineering standards. A risk-based analysis, on the

other hand, does take into account the likelihood of the event occurring or the measures that can be taken to mitigate against its potential impacts.

This OSRA is designed for use as a risk-based assessment. Therefore, the likelihood of oil spills ($\geq 1,000$ bbl in size) occurring on the OCS plays an integral role in the analysis. In addition to the estimated chance of spills occurring, the analysis entails an oil-spill trajectory model. Results from the trajectory analysis provide input to the final product by estimating, given spill occurrence, where spills might travel on the ocean's surface and what resources might be contacted. Results from the final step of the OSRA are, therefore, expressed as the combined probability of spills both occurring and contacting offshore environmental resource locations. Note that the analysis estimates spill contacts, not impacts. Further measures that should be evaluated to determine impacts, such as the natural weathering of oil spills and cleanup activities, are not directly factored into the OSRA, but are discussed in the relevant EIS.

Probability of Oil Spills Occurring

The probability of oil spills occurring assumes that spills are random events that occur independently of each other as a Poisson process. In this analysis, the probability of oil spills occurring is based on oil-spill frequencies per barrel produced that are derived from a fault-tree method of estimating spill occurrence relevant to the Arctic (Bercha Group, 2002). The fault-tree method incorporated an analysis of worldwide and U.S. Outer Continental Shelf oil-spill statistics to evaluate applicability to lease sales in the Beaufort and Chukchi Seas. Annual frequency of spills, by spill size per Bbbl produced, were developed for the Beaufort Sea lease sales for the years 2010-2029. The resulting annual spill frequencies were weighted by annual production estimates to develop spill occurrence rates for platforms and wells (0.13 spills/Bbbl) and pipelines (0.10 spills/Bbbl); these rates served as input into the OSRA Model. Only rates for spills of 1,000 bbl or greater were included in the analysis.

Spill rates are expressed as number of spills per billion barrels (spills/Bbbl), defined as 10^9 bbl, of oil produced or transported. Only spills greater than or equal to 1,000 bbl are addressed because smaller spills may not persist long enough to be simulated by trajectory modeling. Another consideration is that a large spill is likely to be identified and reported; therefore, these records are more comprehensive than those of smaller spills. (Smaller spills are addressed in the EIS for each proposed action without the use of trajectory modeling.)

Two basic criteria were used in selecting volume of oil handled as the exposure variable: (1) the exposure variable should be simple to define, and (2) it should be a quantity that can be estimated. The volume of oil produced or transported was the chosen exposure variable primarily for the following reasons: (1) historic volumes of oil produced and transported are well documented; (2) using these volumes makes the calculation of the estimated oil-spill occurrence rate simple—the ratio of the number of historic spills to the volume of oil produced or transported; and (3) future volumes of oil production and transportation are routinely estimated. Estimates of volume to be developed for a proposed action, which were prepared by analysts in the MMS Resource Evaluation Division, Alaska Regional Office, are derived from the assessment of oil resources by using comprehensive geological and geophysical databases and related models. In addition, the MMS analysts estimate other

exposure variables, such as the number of platforms, as a function of the volume of oil produced or transported.

Fault Tree Analysis: During development of the final EIS for the Liberty Development and Production Plan (Beaufort Sea) in 2000, stakeholders expressed concern regarding the application of historical data from the Gulf of Mexico to the Beaufort OCS. Therefore, MMS used historical oil-spill data gathered from a multitude of sources. Because of this concern, MMS sponsored a new study regarding spill rates (Bercha Group, 2002). This study examined alternative oil-spill occurrence estimators for the Beaufort and Chukchi Seas using a fault tree method. Various causes of spills were looked at in relation to their relevance to Arctic conditions. A preliminary assessment was made regarding the contribution of Arctic versus non-Arctic conditions. Because sufficient historical data on offshore oil spills for these regions do not exist for the Arctic on oil-spill occurrence, a model based on fault tree methodology was developed and applied for this Beaufort multiple sale (Bercha Group, 2002). Using fault trees, oil-spill data from the Gulf of Mexico were modified and incremented to represent expected Arctic performance.

Oil Spill Rates Based on Fault Tree Analysis
(Bercha Group, 2002)

<u>Spill Source</u>	<u>No. of Spills</u> <u>≥ 1,000 bbl</u>
Beaufort Sea OCS Platforms	0.13 spills/Bbbl
Beaufort Sea OCS Pipelines	0.10 spills/Bbbl

The Arctic effects include modifications in causes associated with the historical data set as well as additions of spill causes unique to the Arctic environment. Quantification of existing causes for Arctic oil spills was done in a relatively cursory way restricted to engineering judgment. A reproducible but relatively elementary analysis of gouging and scour effects was carried out. Upheaval buckling and thaw settlement effect assessments were included on the basis of professional judgment; no engineering analysis was carried out for the assessment of frequencies to be expected for these effects. No Arctic effects were estimated for the wells, which were considered to blowout with frequencies the same as those for the Gulf of Mexico. The existing MMS databases on pipeline mileage were used as they stand with all their inherent inaccuracies. Despite these limitations, the spill rates used are the most appropriate estimates available.

Poisson Distribution: The probability of oil spills occurring assumes that spills occur independently of each other as a Poisson process. The Poisson process is a statistical distribution commonly used to model random events. Using Bayesian techniques, Devaney and Stewart (1974) showed that the probability of n oil-spill contacts can be described by a negative binomial distribution. Smith et al. (1982), however, noted that when actual exposure is much less than historical exposure, as is the case here, the negative binomial distribution can be approximated by a Poisson distribution. The Poisson distribution has a significant

advantage in calculations because it is defined by only one parameter, the assumed number of spills. If $p(n,i)$ is the probability of exactly n contacts to environmental resource i , then:

$$p(n,i) = \frac{\lambda_i^n \cdot e^{-\lambda_i}}{n!}$$

where n is the specific number of spills (0, 1, 2, ..., n), e is the base of the natural logarithm, and λ is the parameter of the Poisson distribution. For oil spills, the Poisson parameter (λ) is equal to the spill rate multiplied by the volume of oil to be produced or transported. The spill rate has dimensions of number of spills/Bbbl, and the volume is expressed in Bbbl. Therefore, λ denotes the mean number of spills estimated to occur as a result of production or transportation of a specific volume of oil.

Oil-spill occurrence estimates for spills greater than or equal to 1,000 bbl were calculated for production and transportation of oil during the 30-year analysis period associated with the proposed actions in the Beaufort Sea OCS Program (2004-2033). These probabilities are based on the volume of oil assumed to be found, produced, and transported over the production life of the lease and on the rates that have been calculated for oil spills from OCS platforms and pipelines by the Bercha Group. The probabilities of one or more oil spills greater than or equal to 1,000 bbl occurring as a result of OCS production and transportation resulting from the proposed lease sales or deferral area alternatives are found in Table 1. The probability estimates were calculated for Lease Sale 186 and can be used to represent estimates for the other two lease sales (195 and 202).

Oil-Spill Trajectory Simulations

The OSRA Model, originally developed by Smith et al. (1982) and enhanced by MMS over the years (LaBelle and Anderson, 1985; Price et al., 2002), simulates oil-spill transport using realistic data fields of winds, ice, and ocean currents in the Beaufort and Chukchi Seas. An oil spill on the ocean surface moves around by the complex surface ocean currents exerting a shear force on the spilled oil from below. For cases where the ice concentration is 80 percent or higher, the model ice velocity is used to transport the oil. In addition, the prevailing wind exerts an additional shear force on the spill from above, and the combination of the three forces causes the transportation of the oil spill away from its initial spill location. In the OSRA Model, the velocity of a hypothetical oil spill is the linear superposition of the surface ocean current or ice and the wind drift caused by the winds. The model calculates the movement of hypothetical spills by successively integrating time sequences of three spatially gridded input fields: the surface ocean currents, the ice motion, and the sea-level winds, all of which were generated by other computer models using many observations of relevant physical parameters. In this fashion, the OSRA Model generates time sequences of hypothetical oil-spill locations—essentially, oil-spill trajectories.

At each successive time step, the OSRA Model compares the location of the hypothetical spills against the geographic boundaries of shoreline and designated offshore environmental resources. The model counts the occurrences of oil-spill contact to these areas. Finally, the frequencies of oil-spill contact are computed for designated oil-spill travel times (e.g., 3, 10, 30, 60, 180, or 360 days) by dividing the total number of oil-spill contacts by the total number

of hypothetical spills initiated in the model from a given hypothetical spill location. The frequencies of oil-spill contact are the model-estimated probabilities of oil-spill contact. The OSRA Model output provides the estimated chance of contact to all identified offshore environmental resources and segments of shoreline from locations chosen to represent hypothetical oil spills from oil production and transportation facilities, at several selected oil-spill travel times.

There are factors not explicitly considered by the OSRA Model that can affect the transport of spilled oil as well as the dimensions, volume, and nature of the oil spills contacting environmental resources or the shoreline. These include possible cleanup operations, chemical or biological weathering of oil spills, or the spreading and splitting of oil spills. The OSRA analysts have chosen to take a more environmentally conservative approach by presuming persistence of spilled oil over the selected time duration of the trajectories.

In the trajectory simulation portion of the OSRA Model, many hypothetical oil-spill trajectories are produced by numerically integrating a temporally and spatially-varying ocean current field and superposing on that an empirical wind-induced drift of the hypothetical oil spills (Samuels et al., 1982). Collectively, the trajectories represent a statistical ensemble of simulated oil-spill displacements produced by a field of winds derived from observations and numerically derived ocean currents and ice motion. The winds, ice, and currents are assumed to be statistically similar to those that will occur in the Beaufort Sea during future offshore activities. In other words, the analysts assume that the frequency of strong wind events in the wind field is the same as what will occur during future offshore activities. By inference, the frequencies of contact by the simulated oil spills are the same as what could occur from actual oil spills during future offshore activities.

The other portion of the OSRA Model tabulates the contacts by the simulated oil spills. The model contains the geographical boundaries of a variety of identified environmental features. The shoreline segments proximate to their locations identify onshore resources. Offshore resources are identified by the area of surface waters overlying their locations. At every integration time step, the OSRA Model monitors the locations of the simulated spills and counts the number of oil-spill contacts to segments of shoreline and the locations of onshore and offshore environmental resources. A contact to shore will stop the trajectory of an oil spill; no rewashing is assumed in this model. However, contacts to the transparent (nonland) offshore resources will not stop the respective trajectories. After specified periods of time, the OSRA Model will divide the total number of contacts to the coastline segments and the environmental resources by the total number of simulated oil spills from a given geographic location. These ratios are the estimated probabilities of oil-spill contact from offshore activities at that geographic location, assuming spill occurrence.

Trajectories are constructed from simulations of wind-driven and density-induced ocean flow fields, and the ice motion field. The basic approach is to simulate these time and spatially dependent currents separately, then to combine them through linear superposition to produce an oil-transport vector. This vector is then used to create a trajectory. Simulations are performed for two seasons, winter (October 1-June 30) and summer (July 1-September 30). The choice of this seasonal division was based on meteorological, climatological, and

biological cycles, as well as consultation with Alaska Region EIS analysts. Haidvogel et al. (2001) and Hedström (2000) detail the modeling of each ice motion field and ocean current component. Brief summaries of the methods and assumptions follow.

For cases where the ice concentration is below 80 percent, each trajectory is constructed using vector addition of the ocean current field and 3.5 percent of the instantaneous wind field—a method based on work done by Huang and Monastero (1982), Smith et al. (1982), and Stolzenbach et al. (1977). For cases where the ice concentration is 80 percent or greater, the model ice velocity is used to transport the oil. Equations 1 and 2 show the components of motion that are simulated and used to describe the oil transport:

$$U_{oil} = U_{current} + 0.035 U_{wind} \quad (1)$$

or

$$U_{oil} = U_{ice} \quad (2)$$

where: U_{oil} = oil drift vector

$U_{current}$ = current vector (when ice concentration <80%)

U_{wind} = wind speed at 10 m above the sea surface

U_{ice} = ice vector (when ice concentration \geq 80%)

The wind drift factor was estimated to be 0.035, with a variable drift angle ranging from 0° to 25° clockwise. The drift angle was computed as a function of wind speed according to the formula in Samuels et al. (1982). (The drift angle is inversely related to wind speed.)

For each trajectory simulation, the start time for the first trajectory was the first day of the season (winter or summer) of the first year of wind data (1982) at 6 a.m. Greenwich Mean Time (GMT). The summer season consists of July 1-September 30, and the winter season is October 1-June 30. Each subsequent trajectory was started every 2 days at 6 a.m. GMT. A total of 2,700 trajectories (2,025 in winter, 675 in summer) from each spatial grid point over the 15 years of wind data (1982-1996), and results of these trajectory simulations were combined to represent platform spills (fig. 1). Transportation spills were represented by 2,700 trajectories (2,025 in winter, 675 in summer) launched from each grid point along each pipeline.

Offshore: Offshore of the 10- to 20-meter bathymetry contour, the wind-driven and density-induced ocean-flow fields and the ice-motion fields are simulated using a three-dimensional coupled ice-ocean hydrodynamic model (Haidvogel et al., 2001). The model is based on the ocean model of Haidvogel, et al. (1991; 2001) and the ice models of Hibler (1979) and Mellor and Kantha (1989). This model simulates flow properties and sea ice evolution in the western Arctic during the years 1982-1996. The coupled system uses the S-Coordinate Rutgers University Model (SCRUM) and Hibler viscous-plastic dynamics and the Mellor and Kantha thermodynamics. It is forced by daily surface geostrophic winds and monthly thermodynamic forces. The model is forced by thermal fields for the years 1982-1996. The thermal fields are interpolated in time from monthly fields. The location of each trajectory at each time interval is used to select the appropriate ice concentration. The pack ice is simulated as it grows and melts. The edge of the pack ice is represented on the model grid. Depending on the ice

concentration, either the ice or water velocity with wind drift from the stored results of the Haidvogel et al. (2001) coupled ice-ocean model is used. A major assumption used in this analysis is that the ice-motion velocities and the ocean daily flows calculated by the coupled ice-ocean model adequately represent the flow components. Comparisons with data illustrate that the model captures the first-order transport and the dominant flow (Haidvogel et al., 2001).

The trajectories age while they are in the water/on the ice. For each day that the hypothetical spill is in the water, the spill ages—up to a total of 30 days. While the spill is in the ice ($\geq 80\%$ concentration), the aging process is suspended. The maximum time allowed for the transport of oil in the ice is 360 days after which the trajectory is terminated. The 30-day limit is maintained for spill trajectories in open water.

Summer trajectories are those that start between the beginning of July and the end of September. Therefore, any trajectory contact to an environmental resource area, land segment, or boundary segment beginning at the end of September is considered a summer contact and is counted along with the rest of the contacts from spills launched in the summer.

Nearshore: Inshore of the 20-meter bathymetry contour, U_{current} is simulated using a two-dimensional hydrodynamic model developed by the National Oceanic and Atmospheric Administration (NOAA) (Galt, 1980). This model does not have an ice component. In this model, we added an ice mask within the 0-meter and 20-meter water-depth contours to simulate the observed shorefast ice zone (fig. 8). We apply the mask from November 1-June 15. For the months of November through June 15, U_{ice} is zero, and the ice concentration is greater than or equal to 80 percent. The two-dimensional model incorporated the barrier islands, in addition to the coastline. The model of the shallow water is based on the wind forcing and the continuity equation. The model was originally developed to simulate wind-driven, shallow-water dynamics in lagoons and shallow coastal areas with a complex shoreline. The solutions are determined by a finite element model where the primary balance is between the wind forcing friction, the pressure gradients, Coriolis accelerations, and the bottom friction. The time dependencies are considered small, and the solution is determined by iteration of the velocity and sea-level equations until the balanced solution is calculated. The wind is the primary forcing function, and a sea-level boundary condition of no anomaly produced by the particular wind stress is applied far offshore, at the northern boundary of the OSRA domain. An example of the currents simulated by this model for a 10-meter/second wind from the east is shown in figure 9.

The results of the model were compared to current meter data from the Endicott Environmental Monitoring Program to determine if the model was simulating the first order transport and the dominant flow. The model simulation was similar to the current meter velocities during summer. Example time series from 1985 show the current flow at Endicott Station ED1 for the U (east-west) and V (north-south) components, plotted on the same axis with the current derived from the NOAA model for U and V (Der-U and Der-V). The series show many events that coincide in time, and that the currents derived from the NOAA model are generally in good correspondence with the measured currents. Some of the events in the

measured currents are not particularly well represented; this is probably due to the forcing of the current by something other than wind, such as low frequency alongshore wave motions.

Wind Information

We used 15 years (1982-1996) of the 17-year reanalysis of the wind fields provided to us by Rutgers University. The analysis of the wind fields are derived from the National Aeronautics and Space Administration/NOAA TIROS Operational Vertical Sounder (TOVS) Polar Pathfinder Data Set. These state-of-the-art data are being readied for distribution to the Arctic modeling community as a product of this MMS/Rutgers modeling effort. The TOVS Polar Pathfinder Data Set provides observations of areas poleward of latitude 60° N. at a resolution of 100 x 100 km from January 1980 through December 1996. Designed to address the particular needs of the polar research community, the data set is centered on the North Pole and has been gridded using an equal-area azimuthal projection, a version of the Equal-Area Scalable Earth-Grid. Variables retrieved from satellite-observed radiances for this product include atmospheric temperature, water vapor, skin surface temperature, total effective cloud fraction, cloud top pressure and temperature, solar zenith elevation, surface pressure, turning angle between geostrophic wind and surface stress over ice, emissivity, boundary layer stratification, and geostrophic draft coefficient. The algorithm used to generate these grids has been validated through comparisons with surface observations from the North Polar drifting meteorological station.

Conditional Probabilities of Contact

The probability that an oil spill will contact a specific environmental resource within a given time of travel from a certain location or spill point is termed a *conditional probability*, the condition being that a spill is assumed to have occurred. Each trajectory was allowed to continue for as long as 360 days. However, if the hypothetical spill contacted shoreline sooner than 360 days after the start of the spill, the spill trajectory was terminated, and the contact was recorded.

The trajectories simulated by the model represent only hypothetical pathways of oil slicks; they do not involve any direct consideration of cleanup, dispersion, or weathering processes that could alter the quantity or properties of oil that might eventually contact the environmental resource locations. However, an implicit analysis of weathering and decay can be considered by noting the ages of the simulated oil spills when they contact environmental resource locations. Conditional probabilities of contact with environmental resource locations and land segments within 360 days of travel time were calculated for each of the hypothetical spill sites by the model to serve as input into the final calculation of risk (tables 2-19 and appendices B and C).

Combined Probabilities of Contact

A critical difference exists between the conditional probabilities and the *combined probabilities* calculated. Conditional probabilities depend only on the winds, ice, and currents in the study area. Combined probabilities, on the other hand, depend not only on the physical conditions, but also on the chance of spill occurrence, the estimated volume of oil to be produced or transported, and the oil transportation scenario. The combined probabilities for this analysis of the proposed action activities are presented in tables 20-37.

In calculating the combined probabilities, those that represent probabilities of both oil-spill occurrence and contact, the following steps are performed:

1. For a set of n_t environmental resources and n_l launch points, the conditional probabilities can be represented in a matrix form. Let $[C]$ be an $n_t \times n_l$ matrix, where each element c_{ij} is the probability that an oil spill will contact environmental resource i , given that a spill occurs at launch point j . Note that launch points can represent potential starting points of spills from production areas or transportation routes.
2. Spill occurrence can be represented by another matrix $[S]$. With n_l launch points and n_s production sites, the dimensions of $[S]$ are $n_l \times n_s$. Let each element $s_{j,k}$ be the estimated mean number of spills occurring at launch point j owing to production of a unit volume (1 Bbbl) of oil at site k . These spills can result from either production or transportation. The $s_{j,k}$ can be determined as a function of the volume of oil (spills/Bbbl). Each column of $[S]$ corresponds to one production site and one transportation route. If alternative and mutually exclusive transportation routes are considered for the same production site, they can be represented by additional columns of $[S]$, thus increasing n_s .
3. Matrix $[U]$ is defined as

$$[U] = [C] \times [S]$$

Matrix $[U]$ —which has dimensions $n_t \times n_s$ —is termed the unit risk matrix. Each element $u_{i,k}$ corresponds to the estimated mean number of spills occurring and contacting environmental resource i , owing to the production of a unit volume (1 Bbbl) of oil at site k .

4. With $[U]$, the mean contacts to each environmental resource are estimated, given a set of oil volumes at each site. Let $[V]$ be a vector of dimension n_s where each element v_k corresponds to the volume of oil expected to be found at production site k . Then, if $[L]$ is a vector of dimension n_t , where each element λ_i corresponds to the mean number of contacts to environmental resource i , the formula is

$$[L] = [U] \times [V]$$

Thus, estimates of the mean number of oil spills that will occur and contact environmental resources (or land segments) can be calculated. (Note that as a statistical parameter, the mean number can assume a fractional value, even though fractions of oil spills have no physical meaning.)

Discussion

Conditional probabilities assume a spill has occurred and the transport of the spilled oil depends only on the winds, ice, and ocean currents in the study area. Conditional probabilities of contact were estimated for 3, 10, 30, 60, 180, or 360 days during both summer (appendix B) and winter (appendix C). Summer spills are spills that begin in July through September. Therefore, if any contact to an environmental resource area or land segment is made by a trajectory that began before the end of September, it is considered a summer contact and is counted along with the rest of the contacts from spills launched in the summer. We also estimate the conditional probability of contact from spills that start in winter, freeze into the landfast ice, and melt out in the spring. Winter spills are spills that begin during October 1 through June 30, melt out of the ice, and contact an environmental resource area or land segment during the open-water period. Therefore, if any contact to an environmental resource area or land segment is made by a trajectory that began by the end of June, it is considered a winter contact and is counted along with the rest of the contacts from spills launched in the winter.

Comparisons Among Spill Locations

The primary differences of contact between spill locations are geographic in the perspective of west to east and nearshore versus offshore. Offshore spill locations take longer to contact the coast and nearshore environmental resource area, if contact occurs at all. Winter spill contact to nearshore and coastal resources is less often and to a lesser extent due to the landfast ice in place from October 1 to June 30.

Comparisons Through Time

The proposed sale areas are close to shore, and it is understandable that spills have a probability of contact to the adjacent coastline.

3 Days: During summer, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to 46-percent chance of contacting individual environmental resource areas within 3 days (table B-1). Spills from launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills from pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contact to individual environmental resource areas.

During summer, spills from offshore launch areas LA1, 7, 9, 11, 13, 14 and 16 have less than a 0.5-percent chance of contacting individual land segments within 3 days (table B-7). Spills from nearshore launch areas have a less than 0.5- to 6-percent chance of contacting individual land segments. Spills from pipeline segments have a less than 0.5- to 14-percent chance of contacting individual land segments. Contacts to land segments from pipeline spills are highest where the pipeline comes ashore.

During summer, spills originating at any of the launch areas or pipeline segments have a less than 0.5-percent chance of contacting individual boundary segments within 3 days (table B-13).

During winter, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to 46-percent chance of contacting individual environmental resource areas (table C-1). Spills from launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills from pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contacting individual environmental resource areas.

During winter, spills from launch areas LA1, 3, 5, 7, and 9 through LA17 have less than a 0.5-percent chance of contacting individual land segments within 3 days (table C-7). Spills from nearshore launch areas LA2, 4, 6, 8 and 18 have a less than 0.5- to 1-percent chance of contacting individual land segments. Spills from pipeline segments have a less than 0.5- to 5-percent chance of contacting individual land segments.

During winter, spills originating at any of the launch areas or pipeline segments have a less than 0.5-percent chance of contacting individual boundary segments within 3 days (table C-13).

10 Days: During summer, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to 60-percent chance of contacting individual environmental resource areas within 10 days (table B-2). Spills from launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills from pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contacting individual environmental resource areas.

During summer, spills from LA14 have less than a 0.5-percent chance and LA 9, 11 and 13 have a less than 0.5- to 1-percent chance of contacting individual land segments within 10 days (table B-8). Spills from the other launch areas have a less than 0.5- to 13-percent chance of contacting individual land segments. Spills from pipeline segments P1 through P13 have a less than 0.5- to 18-percent chance of contacting individual land segments within 10 days. Contacts to land segments from pipeline spills are highest where the pipeline comes ashore.

During summer, spills originating at any of the launch areas or pipeline segments have a less than 0.5-percent chance of contacting individual boundary segments within 10 days (table B-14).

During winter, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to greater than 59-percent chance of contacting individual environmental resource areas within 10 days (table C-2). Spills originating at launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills from pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contacting individual environmental resource areas.

During winter, spills from offshore launch areas LA3, 9, 11, 13, 14, 15, and 16 have a less than 0.5-percent chance of contacting individual land segments within 10 days (table C-8). Spills from other launch areas have a less than 0.5- to 2-percent chance of contacting

individual land segments. Spills originating at pipeline segments P1 through P13 have a less than 0.5- to 6-percent chance of contacting individual land segments.

During winter, spills originating at any of the launch areas or pipeline segments have a less than 0.5-percent chance of contacting individual boundary segments within 10 days (table C-14).

30 Days: During summer, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to 66-percent chance of contacting individual environmental resource areas within 30 days (table B-3). Spills from launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills originating at pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contact to individual environmental resource areas.

During summer, spills from launch areas have a less than 0.5- to 17-percent chance of contacting individual land segments within 30 days (table B-9). Spills from pipeline segments have a less than 0.5- to 21-percent chance of contacting individual land segments. Contacts to land segments from pipeline spills are highest where the pipeline comes ashore.

During summer, spills originating at any of the launch areas or pipeline segments have a less than 0.5- to 1-percent chance of contacting individual boundary segments within 30 days (table B-15).

During winter, spills from offshore launch areas LA1 through LA18 have a less than 0.5- to 62- percent chance of contacting individual environmental resource areas within 30 days (table C-3). Spills from launch areas adjacent to or on top of environmental resource areas have the highest percent chance of contact. Spills from pipeline segments P1 through P13 have a less than 0.5- to greater than 99.5-percent chance of contact to individual environmental resource areas.

During winter, spills from offshore launch areas LA11, 13, and 14 have a less than 0.5-percent chance of contacting individual land segments within 30 days (table C-9). Spills from other launch areas have a less than 0.5- to 4-percent chance of contacting individual land segments. Spills originating at pipeline segments P1 through P13 have a less than 0.5- to 6-percent chance of contacting individual land segments.

During winter, spills originating at any of the launch areas or pipeline segments have a less than 0.5- to 2-percent chance of contacting individual boundary segments within 30 days (table C-15).

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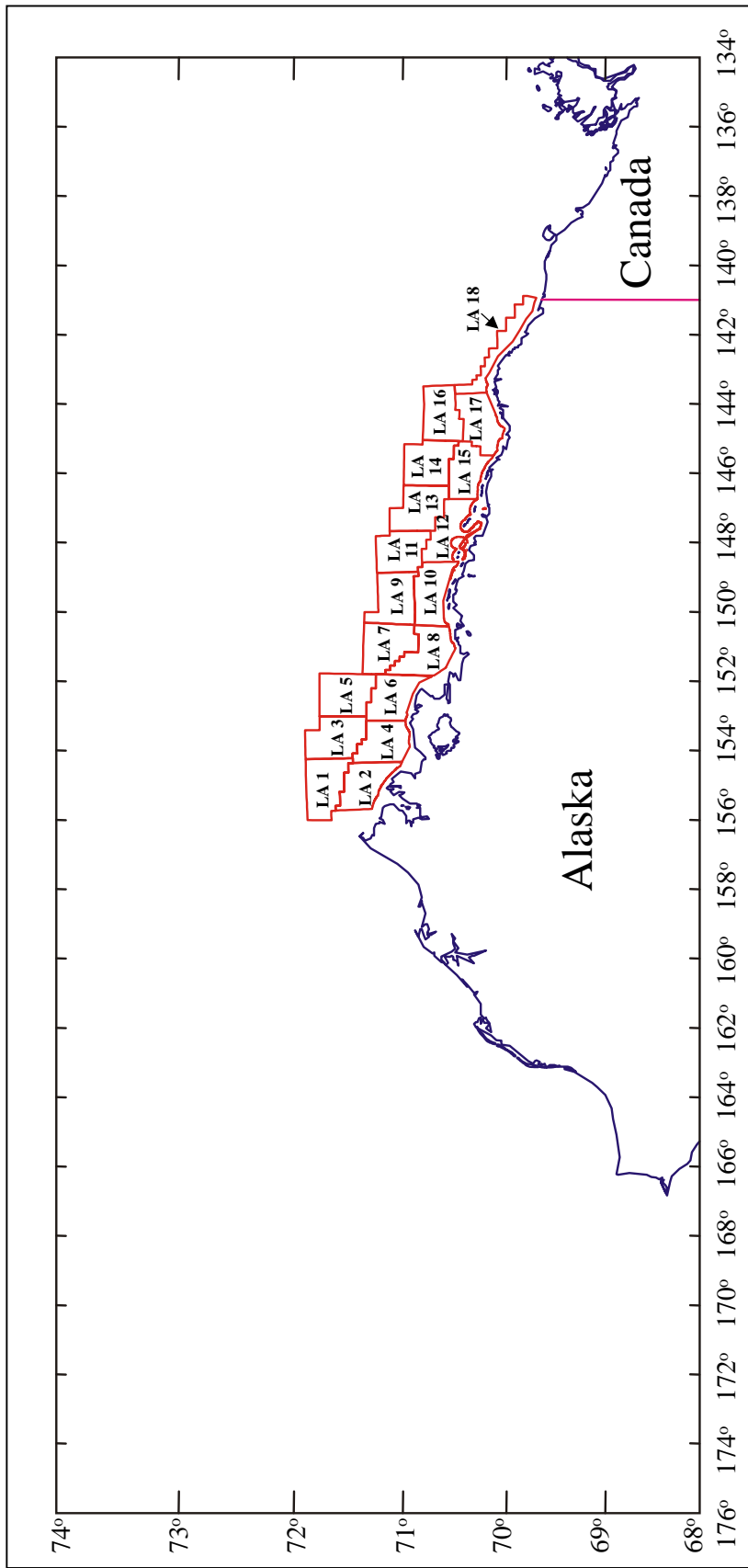


Figure 1. The OSRA Study Area and Hypothetical Launch Areas (LA1-LA18), Beaufort Sea Planning Area, Sales 186, 195, and 202.

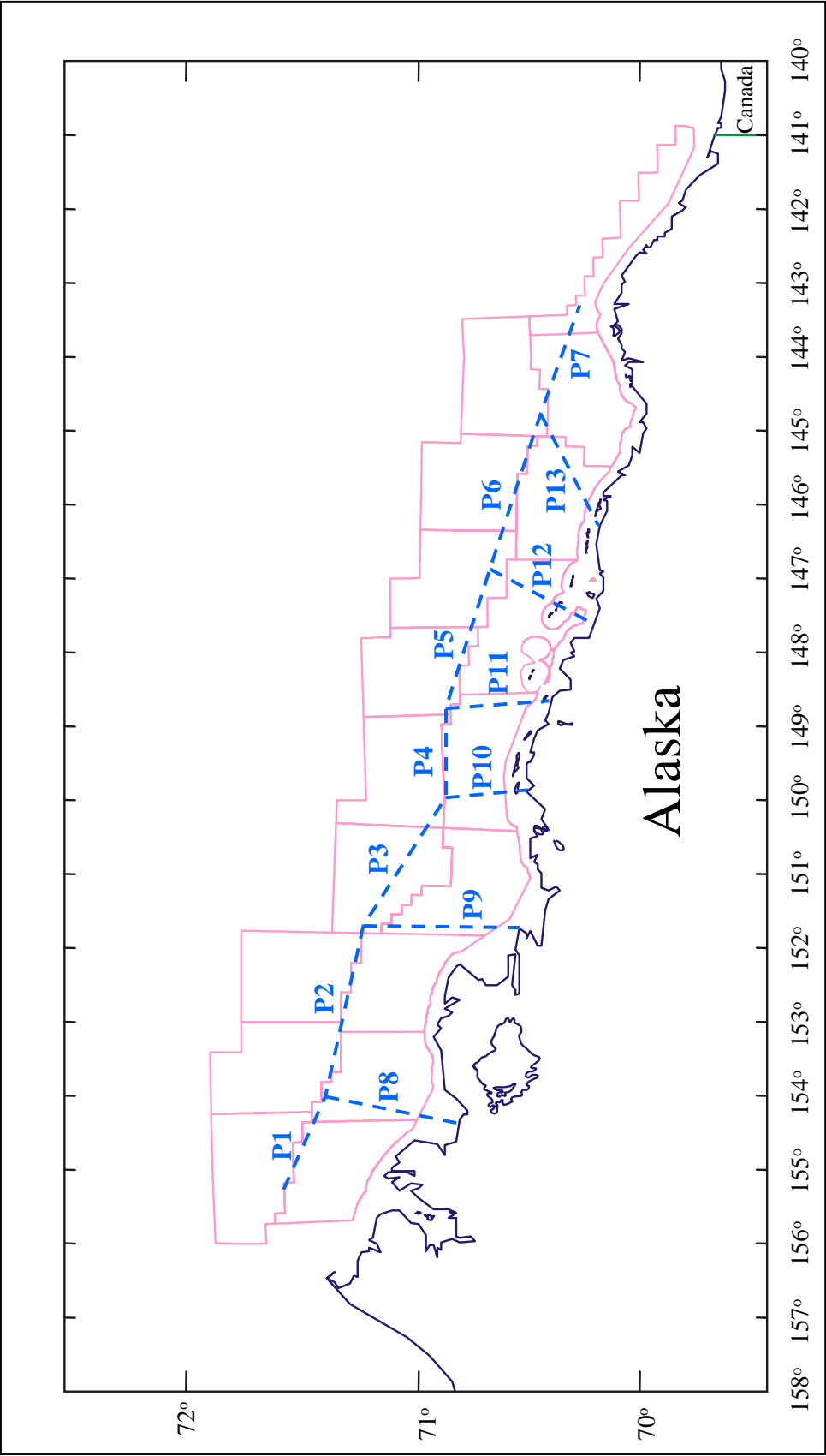


Figure 2. Locations of Hypothetical Pipeline Route Segments (P1-P13), Beaufort Sea Planning Area, Sales 186, 195, and 202.

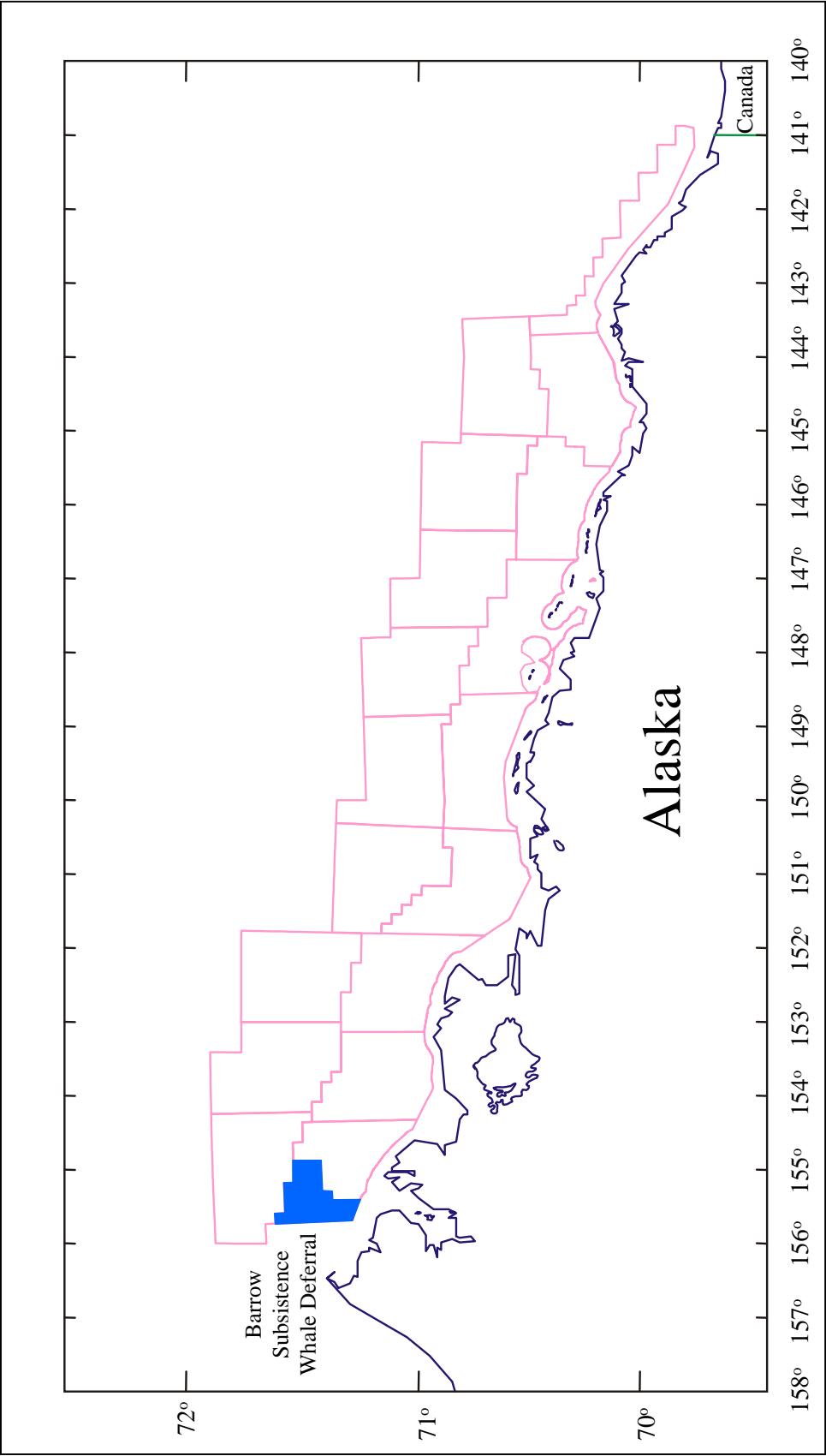


Figure 3. Location of Barrow Subsistence Whale Deferral Area, Beaufort Sea Planning Area, Sales 186, 195, and 202.

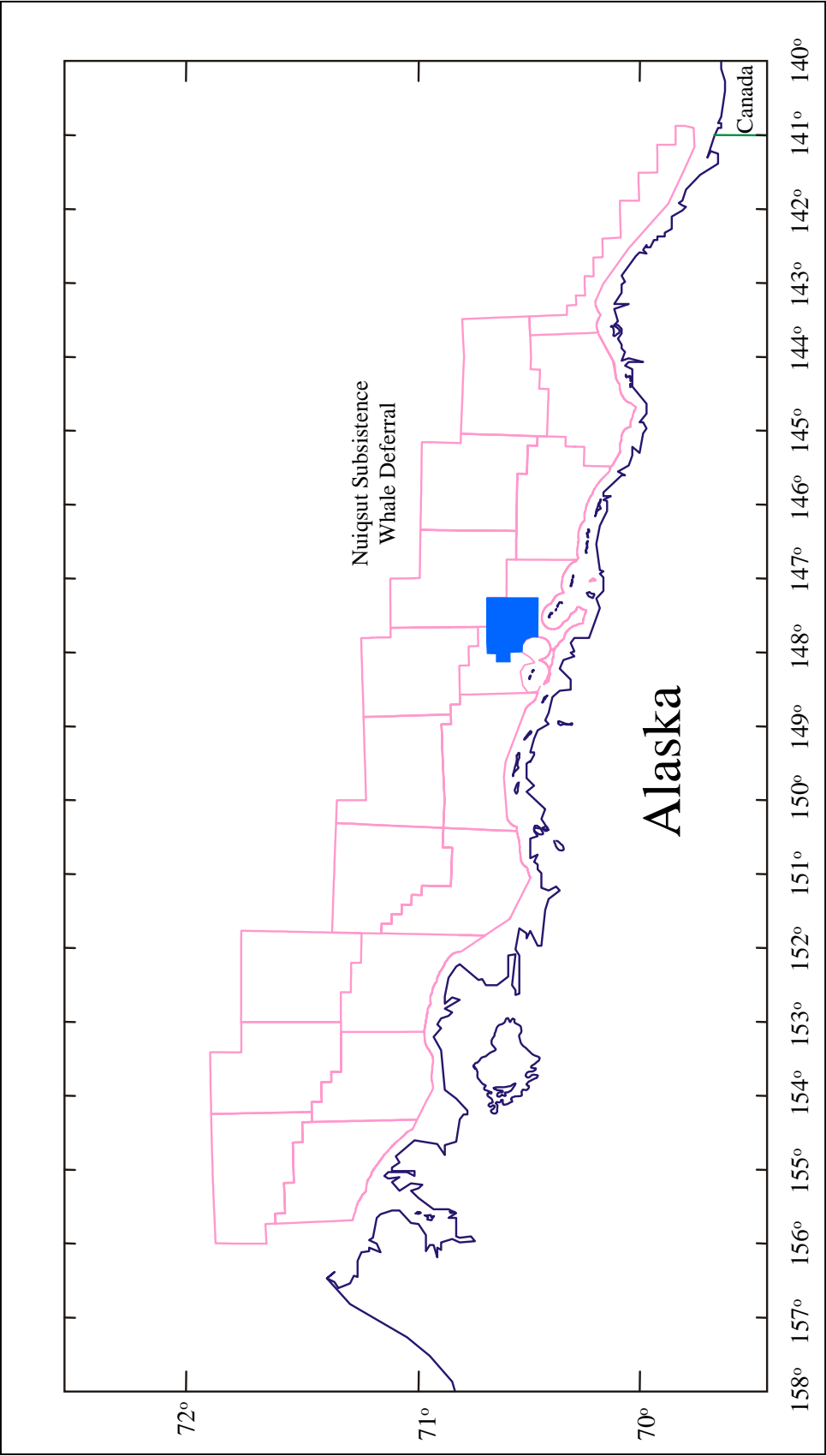


Figure 4. Location of Nuiqsut Subsistence Whale Deferral Area, Beaufort Sea Planning Area, Sales 186, 195, and 202.

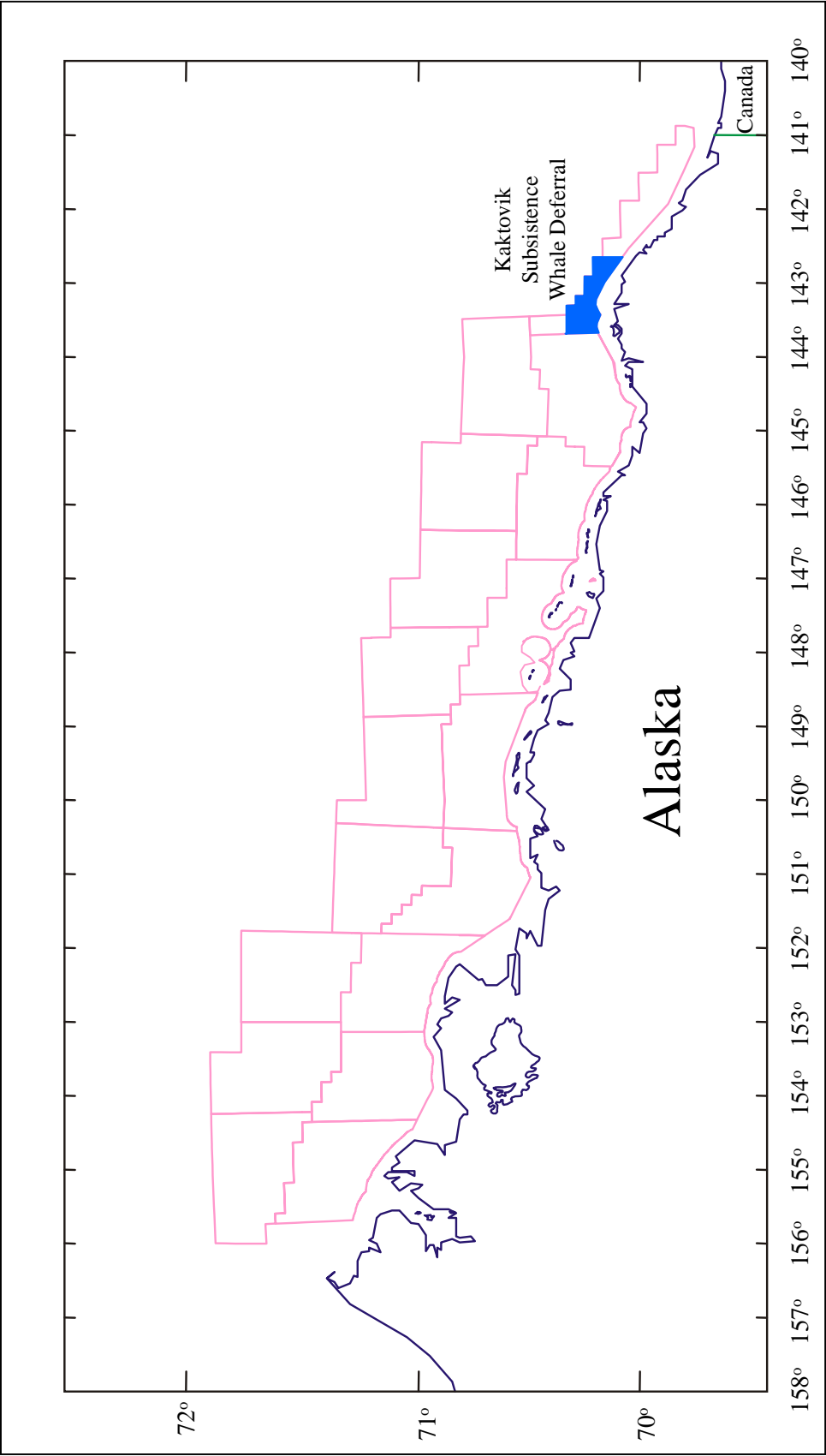


Figure 5. Location of Kaktovik Subsistence Whale Deferral Area, Beaufort Sea Planning Area, Sales 186, 195, and 202.

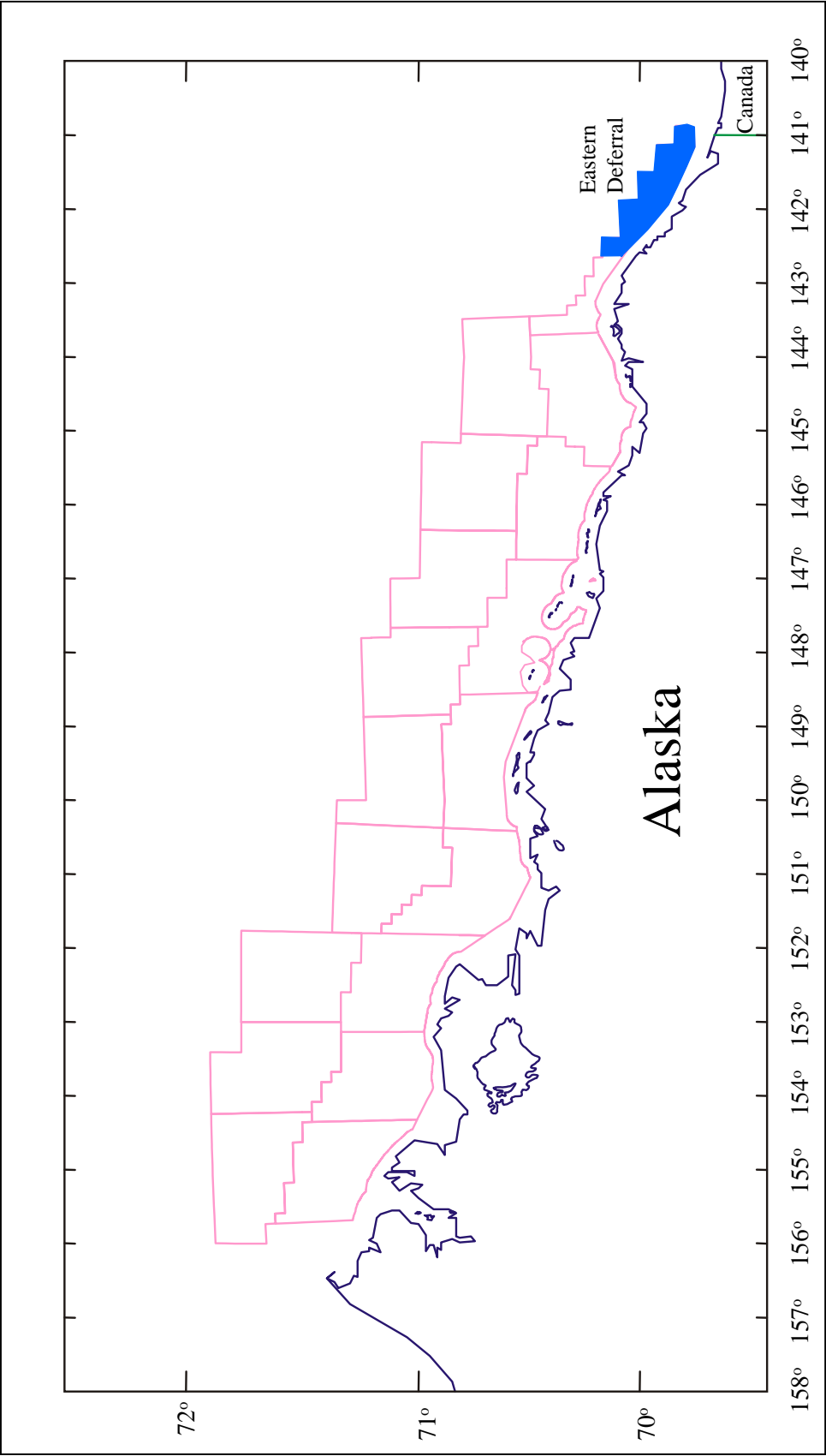


Figure 6. Location of Eastern Deferral Area, Beaufort Sea Planning Area, Sales 186, 195, and 202.

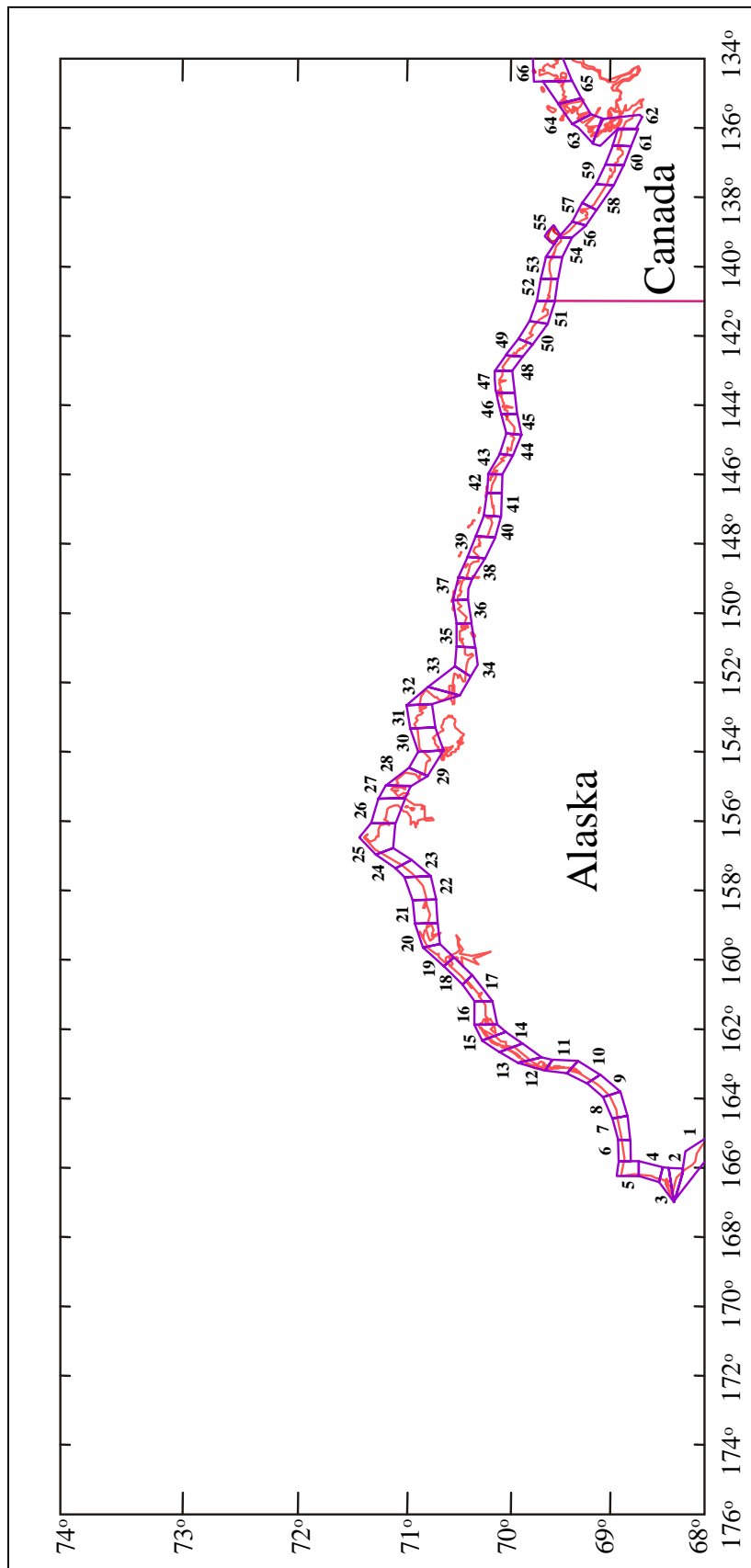


Figure 7. Study Area Coastline Divided into 66 Land Segments, Beaufort Sea Planning Area, Sales 186, 195, and 202.

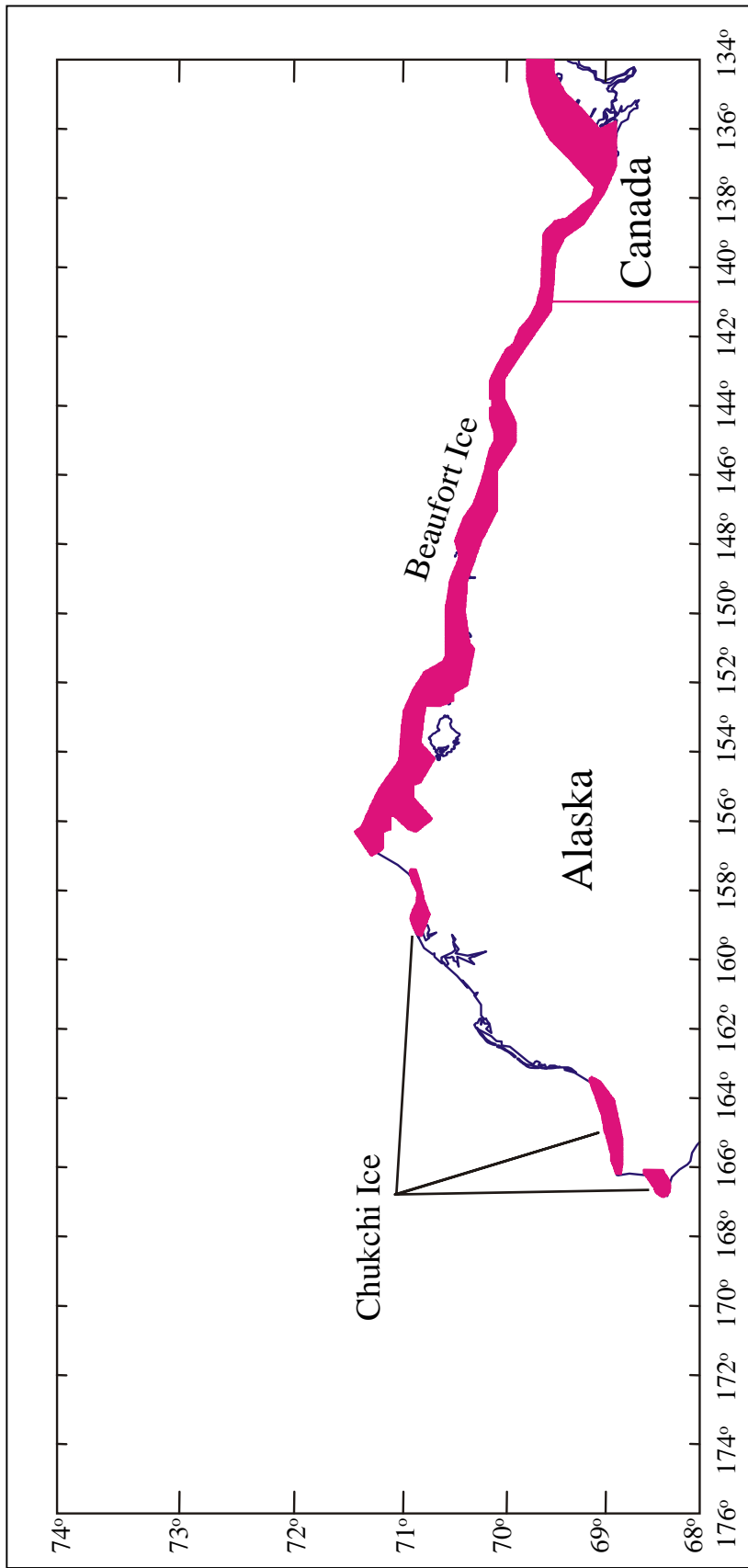


Figure 8. Locations of Landfast Ice Mask, Beaufort Sea Planning Area, Sales 186, 195, and 202.

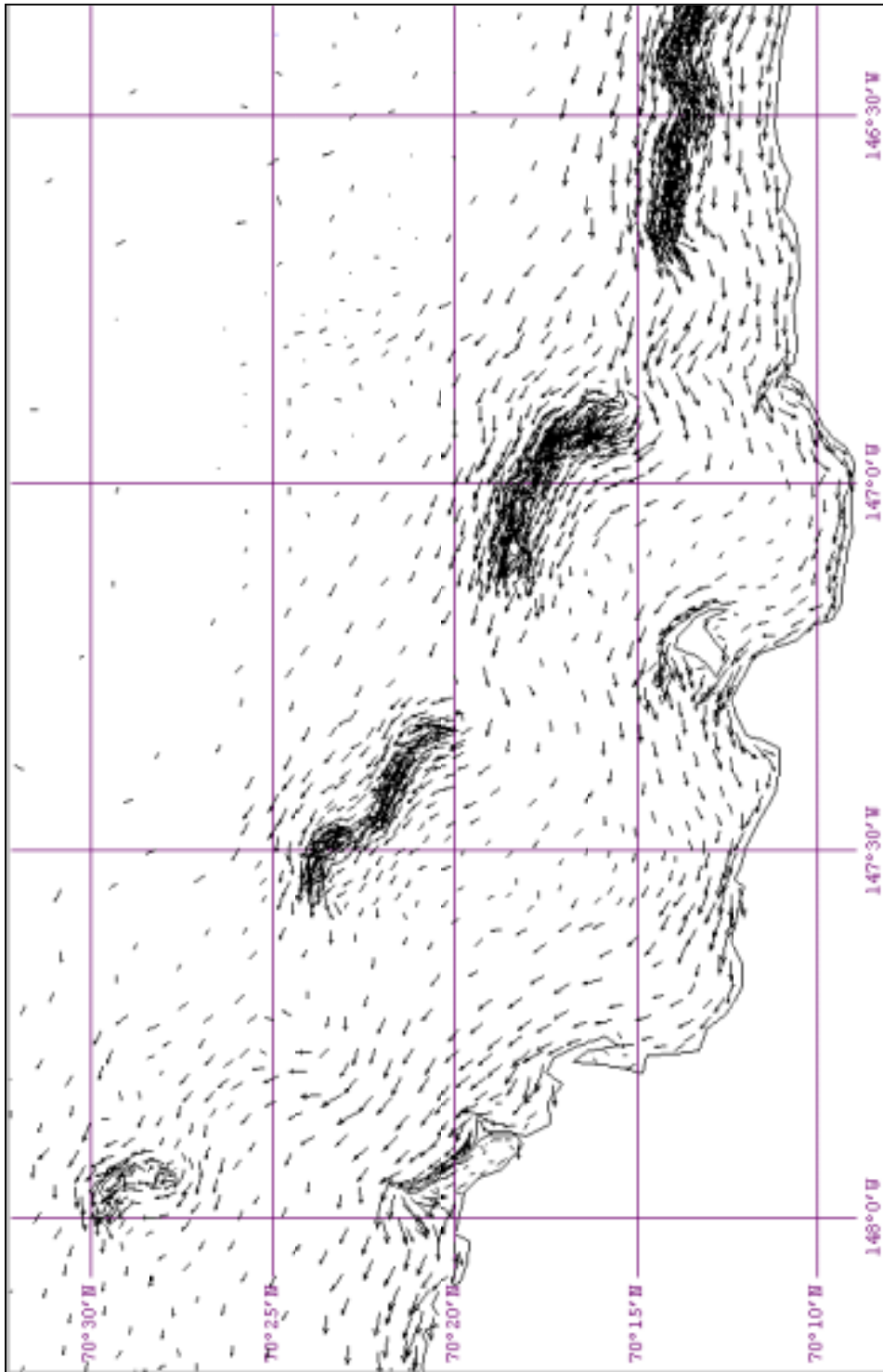


Figure 9. Nearshore Surface Currents Simulated by the NOAA Model for a Wind from the East at 10 Meters/Second.

Table 1. Oil-spill occurrence probability estimates for spills greater than or equal to 1,000 barrels resulting over the assumed production life of the proposed action and alternative actions, Beaufort Sea Planning Area, Sales 186, 195, and 202.*

Source	Volume of Oil (Bbbl)	Probability of One or More Spills	Mean Number of Spills
<u>Proposed Action</u>	0.460		
Platforms		6%	0.060
Pipelines		5%	0.046
All Sources		10%	0.106
<u>Barrow Subsistence Whale Deferral</u>	0.456		
Platforms		6%	0.059
Pipelines		5%	0.046
All Sources		10%	0.105
<u>Nuiqsut Subsistence Whale Deferral</u>	0.436		
Platforms		6%	0.057
Pipelines		4%	0.044
All Sources		10%	0.101
<u>Kaktovik Subsistence Whale Deferral</u>	0.447		
Platforms		6%	0.058
Pipelines		5%	0.045
All Sources		10%	0.103
<u>Eastern Deferral</u>	0.446		
Platforms		6%	0.058
Pipelines		5%	0.045
All Sources		10%	0.103

* The probability estimates were calculated for Lease Sale 186 and can be used to represent estimates for the other two lease sales (195 and 202).

Table 2. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Land	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Thetis and Jones Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cottle & Return Islands, West Dock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Midway Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross and No Name Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Endicott Causeway	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
McClure Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Stockton Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 6	14	5	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 7	6	12	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 8	1	n	12	1	8	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 9	1	1	10	4	8	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 10	n	n	n	n	5	2	12	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 1	3	12	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 2	n	1	2	10	3	8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 3	n	n	n	n	1	5	3	11	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 4	n	n	n	n	n	n	1	1	4	11	3	3	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 5	n	n	n	n	n	n	n	n	1	1	9	4	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 6	n	n	n	n	n	n	n	n	n	n	n	1	1	1	12	7	n	n	n	n	n	n	n	n
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	n	n	n	n	n	1	6	3	n	n	n	n	n	n	n	n
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 2	5	22	1	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nuiqsut Subistence Area	n	n	n	n	n	n	n	n	n	n	n	11	1	n	n	n	n	n	n	n	n	n	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	7	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 2 (Continued). Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	n	3	14	43	23	37	3	1	n	n	n	n	n	n	n	n	n	n	4	71	3	n	n	n
Ice/Sea Segment 16a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	60	5	n	n	n
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	**	41	n	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	44	43	n	n	n
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	19	59	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	70
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	n	5	2	19	n	1	17	2	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay/Colville Delta	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 3 (Continued). Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																														
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	P							
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 15	4	7	22	51	33	47	9	7	2	1	n	n	n	n	n	n	n	10	73	10	1	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 16a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	11	67	19	4	n	n	n	n	n	n	n	
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	14	**	52	4	n	n	n	n	n	n	n	
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 1	3	9	6	24	4	5	1	1	1	n	n	n	n	n	n	n	n	16	9	1	n	n	n	n	n	n	n	n	n	n	
ERA 2	n	n	1	2	4	11	29	20	17	9	3	1	1	n	n	n	n	1	6	6	2	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 16b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Harrison Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Harrison Bay/Colville Delta	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 4 (Continued). Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																														
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	P							
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 11	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	
Hanna's Shoal Polynya	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 12	3	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 13	18	10	8	5	3	2	1	n	n	n	n	n	n	n	n	n	n	n	12	4	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 14	8	11	27	53	38	51	15	12	8	6	4	2	2	n	n	n	n	14	75	15	7	3	1	n	n	23	17	7	4	1	
Ice/Sea Segment 15	2	2	7	6	15	27	63	44	42	28	18	10	8	2	3	n	n	3	16	71	33	15	3	n	3	48	29	18	6	1	
Ice/Sea Segment 16a	1	n	1	1	3	4	14	12	47	52	56	34	28	10	11	2	2	n	1	3	20	**	59	12	n	6	32	50	19	5	
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Peard Bay	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 1	4	10	8	26	7	9	4	3	2	1	1	n	n	n	n	n	n	17	13	4	1	n	n	n	n	28	4	2	1	n	
ERA 2	1	1	4	5	6	22	9	13	5	5	2	2	1	n	n	n	n	2	9	10	5	2	n	n	n	2	16	6	3	1	
Ice/Sea Segment 16b	n	n	1	1	4	8	14	32	24	23	17	10	6	5	1	2	n	n	2	8	38	19	8	2	n	2	25	17	11	4	
Harrison Bay	n	n	1	1	1	3	3	9	2	3	1	1	1	n	n	n	n	n	n	1	3	2	1	n	n	n	15	3	2	1	
Harrison Bay/Colville Delta	n	n	1	1	1	2	3	8	3	6	2	2	1	n	n	n	n	n	n	1	4	5	2	n	n	n	4	8	3	1	
ERA 3	n	n	1	1	2	3	9	11	17	26	9	7	5	1	2	n	n	n	2	17	24	9	2	n	n	6	32	15	5	1	
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 5 (Continued). Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hanna's Shoal Polynya	8	4	5	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 12	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 13	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 14	20	12	11	7	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 15	9	12	29	54	39	52	17	14	11	9	8	5	5	3	3	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 16a	4	3	9	8	17	29	65	46	45	31	22	14	13	6	6	2	2	2	2	2	2	2	2	2
Ice/Sea Segment 17	2	1	3	2	5	6	17	14	49	54	58	36	31	13	13	4	3	3	3	3	3	3	3	3
Ice/Sea Segment 18a	n	n	n	n	1	1	2	2	4	7	9	55	45	24	35	5	5	1	1	1	1	1	1	1
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	1	1	2	6	4	9	62	24	59	7	n	n	n	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	1	1	1	4	5	15	18	50	30	17	n	n	n	n	n	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	1	1	6	8	15	12	13	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	1	2	2	5	4	6	6	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	1	1	2	3	2	1	1	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1
ERA 1	5	11	9	27	8	10	5	4	3	2	2	1	1	1	1	1	1	1	18	13	5	3	2	1
ERA 2	2	2	4	6	7	23	10	15	7	7	4	3	2	1	1	1	1	1	2	9	11	7	4	1
Ice/Sea Segment 16b	n	n	1	1	1	4	3	10	2	4	2	1	1	1	1	1	1	1	1	3	2	2	1	1
Harrison Bay	n	n	1	1	1	3	4	10	5	7	3	3	2	1	1	1	1	1	1	2	5	6	3	1
Harrison Bay/Colville Delta	n	n	2	1	3	4	10	12	18	27	11	9	7	3	3	1	1	1	3	19	25	11	4	1
ERA 3	1	n	n	n	1	1	2	3	4	7	4	5	3	1	1	1	1	1	n	1	3	5	5	1
Simpson Lagoon	n	n	n	n	n	n	n	n	n	1	n	2	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 6. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Land	35	49	35	49	34	46	34	48	31	40	27	40	28	30	36	37	47	64
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	17	29	13	14	9	8	5	4	3	2	2	1	2	2	1	1	1	21
Thetis and Jones Islands	n	n	1	1	2	3	6	8	9	17	10	10	7	3	4	1	1	n
Cottle & Return Islands, West Dock	n	n	n	n	1	1	2	2	4	8	5	10	4	2	2	n	1	n
Midway Islands	n	n	n	n	n	n	1	1	2	1	2	1	4	1	1	1	n	n
Cross and No Name Islands	n	n	n	n	n	n	n	n	1	2	1	6	2	1	3	1	1	n
Endicott Causeway	n	n	n	n	n	n	n	n	1	1	1	3	n	n	n	n	n	n
McClure Islands	n	n	n	n	n	n	n	n	1	1	4	1	1	2	n	n	n	n
Stockton Islands	n	n	n	n	n	n	n	n	n	n	3	1	1	2	n	1	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	n	n	2	1	1	2	n	1	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	1	1	1	2	n	1	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	4	1
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	1	1	2	4	4	10	4	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	1	1	1	1	3	3	5	7	10	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	n	n	1	1	2	2	9	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	n	n	1	1	3	3	13	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	2	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	2
Beaufort Spring Lead 6	19	15	10	8	6	5	4	2	3	2	2	1	2	2	1	1	1	18
Beaufort Spring Lead 7	13	20	9	9	6	5	4	2	3	2	3	1	2	2	1	1	24	9
Beaufort Spring Lead 8	4	6	17	10	14	8	6	4	5	4	4	2	3	3	2	3	1	8
Beaufort Spring Lead 9	4	6	15	13	14	11	7	5	5	4	4	2	3	3	2	2	1	8
Beaufort Spring Lead 10	1	1	3	4	10	9	21	12	13	9	8	5	6	4	4	3	2	1
Ice/Sea Segment 1	8	14	6	6	4	3	2	1	1	1	n	n	n	n	n	n	11	5
Ice/Sea Segment 2	3	5	7	12	8	11	5	3	3	2	2	1	1	n	n	n	6	10
Ice/Sea Segment 3	2	1	3	3	4	8	9	14	6	7	5	3	2	1	1	1	1	2
Ice/Sea Segment 4	1	n	1	1	2	2	4	4	9	15	11	8	7	3	2	1	1	1
Ice/Sea Segment 5	n	n	n	n	n	n	n	n	1	2	3	4	12	8	4	5	1	n
Ice/Sea Segment 6	n	n	n	n	n	n	n	n	n	1	1	3	3	15	2	9	1	n
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	n	n	n	1	1	3	4	6	10	5
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	n	1	1	3	3	5	4	7
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	1	2	2	3	3	5	4	6
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	2	1	1	1	1	n	n	n	n	n	1	n	n	1	n	n	2	1
Barrow Subistence Area 1	3	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	3	1
Barrow Subistence Area 2	16	26	12	15	10	8	6	4	4	2	3	1	2	2	1	1	1	18
Nuiqsut Subistence Area	n	n	n	n	n	n	n	n	1	1	3	3	14	5	2	3	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	n	n	1	1	3	5	5	11	9

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 6 (Continued). Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	6	4	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Hanna's Shoal Polynya	13	9	9	6	5	4	3	2	2	1	2	1	2	1	1	1	1	1
Ice/Sea Segment 12	5	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 13	6	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 14	23	15	14	9	9	5	4	2	3	2	2	1	2	2	1	2	1	1
Ice/Sea Segment 15	10	14	30	57	41	55	21	17	15	12	12	7	8	6	6	5	4	1
Ice/Sea Segment 16a	5	5	11	11	19	31	66	51	49	38	28	20	18	10	10	5	4	1
Ice/Sea Segment 17	3	2	4	4	7	8	20	18	51	58	60	40	34	16	16	6	4	1
Ice/Sea Segment 18a	n	n	n	1	1	1	3	2	6	8	11	58	46	24	37	5	6	1
Ice/Sea Segment 19	n	n	n	n	1	n	1	n	2	2	2	8	5	11	63	26	63	8
Ice/Sea Segment 20a	2	1	2	n	1	n	1	n	2	1	3	6	8	19	22	53	35	21
Ice/Sea Segment 21	2	1	1	n	1	n	1	n	1	1	2	3	4	11	12	22	17	18
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	1	2	3	7	8	13	9	10	n
Ice/Sea Segment 23	n	n	n	n	n	n	1	n	1	1	2	3	4	7	7	9	7	4
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	1	1	2	2	4	4	5	3	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	3	2	2	1	1	n	1	n	n	n	n	n	n	n	n	n	n	n
ERA 1	6	14	11	32	10	12	7	5	4	3	3	2	2	2	1	1	n	2
ERA 2	2	2	6	8	9	28	15	23	12	14	9	7	6	4	4	3	2	n
Ice/Sea Segment 16b	3	3	6	7	11	18	37	31	29	25	17	13	10	5	6	3	3	1
Harrison Bay	n	n	1	1	1	5	4	13	4	5	3	3	2	1	2	n	1	n
Harrison Bay/Colville Delta	1	1	2	3	5	7	16	8	12	7	5	5	2	2	1	1	n	1
ERA 3	1	1	3	3	4	6	14	19	23	36	16	15	11	5	7	2	2	n
Simpson Lagoon	n	n	1	1	2	3	5	7	8	14	8	10	6	3	3	1	1	n
Gwyder Bay	n	n	n	n	n	n	n	1	2	1	2	1	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	1	2	1	3	6	5	31	8	4	7	1	1	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	1	2	1	9	1	1	2	n	1	n
Foggy Island Bay	n	n	n	n	n	n	n	n	1	1	1	8	1	1	2	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	1	1	4	n	n	1	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	2	n	2	18	4	2	8	1
Ice/Sea Segment 18b	n	n	n	1	1	1	2	4	6	7	34	25	12	18	2	3	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 8. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Hypothetical Spill Location																																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13					
25	Barrow, Elson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
26	Dease Inlet	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
27	Kurgorak Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
28	Cape Simpson	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
29	Ikpikpak River, Smith Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
30	Drew Point, McLeod Point	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
31	Lonely, Pitt Point, Pogik Bay	n	n	n	1	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
32	Cape Halkett	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
33	Atigaru Point, Kogru River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
34	Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
35	Colville River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
36	Oliktok Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
38	Kuparuk River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
41	Bullen Point, Point Gordon, Reliance Pt.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	5	
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
44	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
45	Anderson Point, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
46	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
47	Griffin Point, Oruktaalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
48	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
49	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
50	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 9. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Name	Hypothetical Spill Location																														
		LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13
25	Barrow, Elson Lagoon	3	4	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	1	n	n	n	n	n
26	Dease Inlet	1	5	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	1	n	n	n	n	n
27	Kurgorak Bay	1	2	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n	n
28	Cape Simpson	n	3	1	3	1	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	7	n	n	n	n	n
29	Ikpikpak River, Smith Bay	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	7	n	n	n	n	n
30	Drew Point, McLeod Point	n	1	n	4	1	1	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	3	n	n	n	n	n
31	Lonely, Pitt Point, Pogik Bay	n	n	1	2	2	5	1	1	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	1	n	n	n	n	n
32	Cape Halkett	n	n	n	1	1	4	1	4	n	1	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	6	1	n	n	n
33	Atigaru Point, Kogru River	n	n	n	n	n	1	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	1	n	n	n
34	Fish Creek	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	Colville River	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	Oliktok Point	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	Bullen Point, Point Gordon, Reliance Pt.	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n
53	Komakuk Beach, Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 10. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
24	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	6	7	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n
26	4	7	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n
27	2	4	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n
28	1	4	2	5	1	2	1	n	n	n	n	n	n	n	n	n	n	n
29	n	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n
30	1	1	2	5	2	2	1	n	n	n	n	n	n	n	n	n	n	n
31	1	1	2	3	3	6	2	2	1	1	n	n	n	n	n	n	n	n
32	n	n	1	1	2	5	2	6	1	1	n	n	n	n	n	n	n	n
33	n	n	n	n	1	1	1	5	1	1	n	n	n	n	n	n	n	n
34	n	n	n	n	n	1	1	3	1	1	n	n	n	n	n	n	n	n
35	n	n	n	n	n	1	1	2	1	2	n	n	n	n	n	n	n	n
36	n	n	n	n	n	1	1	1	1	1	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	1	3	1	2	1	n	n	n	n	n	n
38	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	n
39	n	n	n	n	n	n	n	n	n	1	n	2	n	n	n	n	n	n
40	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n
41	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
42	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
43	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n
44	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n
45	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n
46	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n
47	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n
48	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
49	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
51	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
52	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
53	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
54	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
55	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 11. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Name	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13		
22	Skull Cliff	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
23	Nulavik	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
24	Walakpa Bay, Walakpa River	2	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	
25	Barrow, Elson Lagoon	9	9	4	4	3	2	1	1	1	1	n	n	n	n	n	n	n	n	7	3	1	1	n	n	n	n	n	n	n	n	n	n	
26	Dease Inlet	4	8	3	3	2	2	1	1	1	1	n	n	n	n	n	n	n	n	7	2	1	1	n	n	n	n	n	n	n	n	n	n	
27	Kurgorak Bay	2	4	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n	n	
28	Cape Simpson	2	4	2	6	2	3	1	1	1	n	n	n	n	n	n	n	n	n	3	3	1	n	n	n	n	n	n	n	n	n	n	n	
29	Ikpikpak River, Smith Bay	1	1	1	3	1	1	1	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	
30	Drew Point, McLeod Point	1	1	2	6	2	3	2	1	1	1	n	n	n	n	n	n	n	n	2	3	2	1	n	n	n	n	n	n	n	n	n	n	
31	Lonely, Pitt Point, Pogik Bay	1	1	3	4	4	8	3	3	2	2	1	1	n	n	n	n	n	n	1	4	3	2	1	n	n	n	n	n	n	n	n	n	
32	Cape Halkett	n	n	1	1	2	6	3	7	2	3	2	1	n	n	n	n	n	n	n	2	4	3	2	1	n	n	n	n	n	n	n	n	
33	Atigaru Point, Kogru River	n	n	n	n	1	1	2	1	4	1	2	1	n	n	n	n	n	n	n	1	1	1	n	n	n	n	n	n	n	n	n	n	
34	Fish Creek	n	n	n	n	1	1	2	4	2	2	1	1	n	n	n	n	n	n	n	1	2	1	n	n	n	n	n	n	n	n	n	n	
35	Colville River	n	n	n	n	1	1	1	3	1	2	1	1	n	n	n	n	n	n	n	1	2	1	n	n	n	n	n	n	n	n	n	n	
36	Oliktok Point	n	n	n	n	n	1	1	2	1	3	1	1	n	n	n	n	n	n	n	1	2	2	n	n	n	n	n	n	n	n	n	n	
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	1	1	3	1	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	Bullen Point, Point Gordon, Reliance Pt.	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	Collinson Point, Konganevik Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
53	Komakuk Beach, Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
54	Nunatak Spit	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
55	Herschel Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 12. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	13	14	7	6	5	4	3	2	2	1	2	1	1	1	1	1	1	1
26	6	11	5	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1
27	3	5	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
28	2	6	4	11	3	4	2	2	1	1	1	1	1	1	1	1	1	1
29	1	2	2	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1
30	1	2	3	7	3	4	3	2	2	1	1	1	1	1	1	1	1	1
31	2	2	5	6	6	13	6	6	4	5	4	3	3	2	2	7	4	5
32	n	n	2	1	3	8	5	11	4	6	3	3	3	1	1	3	6	5
33	n	n	1	1	1	2	2	5	2	2	1	1	1	1	1	2	2	1
34	n	n	1	1	1	1	2	5	2	2	1	1	1	1	1	2	2	1
35	n	n	1	1	1	1	2	5	3	5	2	2	2	1	1	2	4	2
36	n	n	1	1	1	1	2	3	3	4	2	2	2	1	1	3	4	3
37	n	n	n	n	1	1	1	2	2	5	3	5	2	1	1	4	1	4
38	n	n	n	n	n	n	n	n	n	1	2	1	1	1	1	1	1	1
39	n	n	n	n	n	n	n	n	n	1	1	4	n	n	n	n	n	1
40	n	n	n	n	n	n	n	n	n	1	1	2	n	n	n	n	n	1
41	n	n	n	n	n	n	n	n	n	1	1	2	n	n	n	n	n	1
42	n	n	n	n	n	n	n	n	n	n	n	2	1	1	1	2	n	1
43	n	n	n	n	n	n	n	n	n	n	n	1	n	n	2	1	5	1
44	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
45	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
46	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
47	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
48	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
49	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
50	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
51	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
52	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
53	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
54	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
55	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
56	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
57	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
60	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
63	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
64	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
65	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1
66	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 14. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>												
Boundary Segment	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
1	2	3	4	5	6	7	8	9	10	11	12	13
2	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
3	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
4	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
5	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
6	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
7	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
8	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
9	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
10	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
11	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
12	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
13	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 15. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>												
Boundary Segment	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
1	2	3	4	5	6	7	8	9	10	11	12	13
2	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
3	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
4	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
5	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
6	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
7	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
8	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
9	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
10	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
11	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
12	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
13	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 16. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>												
Boundary Segment	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
1	2	3	4	5	6	7	8	9	10	11	12	13
2	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
3	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
4	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
5	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
6	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
7	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
8	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
9	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
10	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
11	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
12	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
13	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
22	1	n	1	n	n	n	n	n	n	n	n	n
23	1	1	1	1	n	n	n	n	n	n	n	n
24	1	1	1	1	1	n	n	n	n	n	n	n
25	1	1	2	1	1	1	n	n	n	n	n	n
26	1	n	1	n	2	1	1	1	n	n	n	n
27	n	n	1	n	1	1	n	1	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 17. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																														
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24	LA 25	LA 26	LA 27	LA 28	LA 29		
18	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
19	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	
20	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n	n	
21	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	
22	1	1	1	1	1	1	1	n	1	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	
23	3	2	2	2	2	2	1	1	1	1	n	n	n	n	n	n	n	n	2	2	1	1	1	1	1	1	1	1	1	1	
24	3	2	2	1	2	1	1	1	1	n	n	n	n	n	n	n	n	n	3	1	1	n	n	n	n	n	n	n	n	n	
25	3	2	3	2	3	2	3	2	2	1	1	1	1	n	n	n	n	n	2	3	2	1	1	2	1	2	1	1	1	n	
26	1	1	3	1	3	2	3	2	3	2	3	2	1	1	1	1	n	n	2	2	3	2	3	3	2	1	1	1	2	1	
27	1	1	2	1	3	2	3	2	3	2	3	2	2	1	1	n	n	n	2	2	2	2	2	2	2	2	1	1	2	1	
28	1	n	1	n	1	1	1	1	1	1	1	2	1	1	1	1	n	n	1	1	1	1	1	1	1	1	1	1	n	1	
29	n	n	n	n	n	n	1	n	n	n	1	n	1	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 18. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																			
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13					
18	4	3	3	2	2	2	1	n	1	n	n	n	n	n	n	n	n	n	3	2	1	1	n	n	n	n	1	n	n	n	n	n	n			
19	5	3	3	2	2	1	1	1	1	n	1	n	n	n	n	n	n	n	4	2	1	n	1	n	n	n	2	1	n	n	n	n	n			
20	5	3	3	2	2	1	1	1	n	n	n	n	n	n	n	n	n	n	4	3	1	n	n	n	n	n	2	n	n	n	n	n	n			
21	2	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	2	1	1	1	n	n	n	n	1	n	n	n	n	n	n			
22	2	1	2	1	2	1	1	n	1	n	n	n	n	n	n	n	n	n	1	1	1	n	1	n	n	n	1	n	n	1	n	1	n			
23	3	2	3	2	3	2	2	1	1	1	1	1	1	n	n	n	n	n	3	2	2	1	1	1	n	1	n	2	2	1	1	n	n			
24	3	2	3	2	2	2	2	1	2	1	1	1	1	n	1	n	n	n	3	2	2	1	1	n	1	n	2	2	1	1	n	n	n			
25	3	2	4	3	4	3	4	3	3	2	3	2	2	1	1	n	n	n	3	4	4	2	2	3	1	2	3	1	2	3	2	2	1	n		
26	2	2	3	2	4	3	5	3	5	4	5	3	5	4	4	3	3	1	3	4	5	4	5	4	4	3	2	3	3	3	3	2	3	n		
27	2	2	4	3	6	4	7	5	7	6	8	5	7	6	5	3	2	1	2	4	6	7	6	7	6	6	1	2	6	5	4	4	4	n		
28	3	2	3	2	4	4	4	2	4	3	5	3	4	4	3	3	2	3	2	3	4	4	4	4	3	2	3	1	2	3	1	2	1	2	n	
29	2	1	2	1	2	1	2	2	2	2	2	2	2	3	2	3	2	1	2	1	2	1	2	2	3	3	2	1	1	1	2	1	1	1	n	
30	n	n	n	n	n	n	1	n	1	n	1	1	1	n	1	n	n	n	n	n	n	n	1	1	1	1	n	n	n	1	1	n	n	n	n	
31	n	n	n	n	n	n	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	1	1	1	1	n	n	n	n	n	n	n	n	n	
34	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 19. Annual conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																											
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24	LA 25	LA 26	LA 27	LA 28	LA 29	LA 30	LA 31	LA 32	LA 33	LA 34	LA 35	LA 36	LA 37	LA 38						
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
18	4	3	3	2	2	2	1	1	1	1	1	n	n	n	n	n	n	n	3	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
19	5	3	3	2	2	2	1	1	1	1	1	1	n	n	n	n	n	n	5	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
20	5	3	3	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	4	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
21	2	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
22	3	2	2	1	2	1	1	n	1	n	1	n	n	n	n	n	n	n	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
23	3	2	3	2	3	2	2	1	1	1	1	1	n	n	n	n	n	n	3	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
24	3	2	3	2	2	2	2	1	2	1	1	1	n	n	n	n	n	n	3	2	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
25	4	3	4	3	4	3	4	3	3	2	3	2	3	3	2	1	1	n	3	4	4	2	2	3	1	2	2	3	1	2	3	1	2	3	1	2	3	2	2	2	1	n		
26	2	2	4	3	5	4	6	4	6	4	5	4	5	4	4	4	3	1	3	4	6	5	4	3	2	4	3	2	4	3	2	4	3	2	4	3	2	4	3	3	4	n		
27	2	2	4	4	6	5	8	7	8	7	9	6	8	7	6	3	2	1	3	5	8	8	7	2	1	3	2	1	3	5	8	7	2	3	4	2	3	8	7	5	4	n		
28	3	2	4	3	5	5	5	3	5	4	5	4	5	3	3	3	2	3	4	5	4	5	4	3	2	3	2	3	4	5	4	3	4	2	3	4	2	3	2	3	3	n		
29	2	1	2	1	2	1	2	2	2	2	2	2	3	3	3	2	1	2	1	2	1	2	2	1	1	2	1	2	1	2	1	2	1	2	3	2	1	2	1	2	2	n		
30	1	n	n	n	1	n	1	n	1	n	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
31	n	n	n	n	n	n	1	1	1	1	1	1	1	n	n	n	n	n	n	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
33	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	1	n	1	n	n	n	n	n	n	1	1	2	1	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 20. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral			
	Prob	Mean	n	Subsistence		Whale	Subsistence		Whale	Subsistence		Whale	Subsistence		Whale	
				Deferral	Mean		Deferral	Mean		Deferral	Mean		Deferral	Mean		
Land	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Kasegaluk Lagoon	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Point Barrow, Plover Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Thetis and Jones Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Cottle & Return Islands, West Dock	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Midway Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Cross and No Name Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Endicott Causeway	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
McClure Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Stockton Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Tigvariak Island	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Maguire Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Flaxman Island	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Barrier Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Anderson Point Barrier Islands	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Arey and Barter Islands, Bernard Spit	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Jago and Tapkaurak Spits	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Angun and Beaufort Lagoons	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Icy Reef	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Chukchi Spring Lead 1	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Chukchi Spring Lead 2	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Chukchi Spring Lead 3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Chukchi Spring Lead 4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Chukchi Spring Lead 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Beaufort Spring Lead 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Beaufort Spring Lead 7	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Beaufort Spring Lead 8	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Beaufort Spring Lead 9	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Beaufort Spring Lead 10	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 1	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 2	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 3	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 4	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 5	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 6	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 7	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 8	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Ice/Sea Segment 9	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Point Hope Subsistence Area	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Point Lay Subsistence Area	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Wainwright Subsistence Area	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Barrow Subsistence Area 1	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Barrow Subsistence Area 2	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Nuiqsut Subsistence Area	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0
Kaktovik Subsistence Area	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0	n	0.0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 20 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral		
	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral
Whale Concentration Area	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Herald Shoal Polynya	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 10	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 11	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Hanna's Shoal Polynya	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 12	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 13	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 14	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 15	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Ice/Sea Segment 16a	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 17	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Ice/Sea Segment 18a	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Ice/Sea Segment 19	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0
Ice/Sea Segment 20a	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 21	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 22	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 23	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 24a	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ledyard Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Peard Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 1	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 2	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 16b	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Harrison Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Harrison Bay/Colville Delta	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 3	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Simpson Lagoon	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Gwyder Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Prudhoe Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Cross Island ERA	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Water over Boulder Patch 1	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Water over Boulder Patch 2	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Foggy Island Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Mikkelsen Bay	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 4	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 18b	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Simpson Cove	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 5	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Kaktovik ERA	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 20b	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 6	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 7	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
ERA 8	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0
Ice/Sea Segment 24b	n	0	0	n	0	0	n	0	0	n	0	0	n	0	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 21. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative 1)		Barrow		Nuiqsut		Kaktovik		Eastern Deferral	
	Prob	Mean	Subsistence	Whale	Subsistence	Whale	Subsistence	Whale	Subsistence	Whale
			Deferral	Mean	Deferral	Mean	Deferral	Mean	Deferral	Mean
Land	1	0	1	0	1	0	1	0	1	0
Kasegaluk Lagoon	n	0	n	0	n	0	n	0	n	0
Point Barrow, Plover Islands	n	0	n	0	n	0	n	0	n	0
Thetis and Jones Islands	n	0	n	0	n	0	n	0	n	0
Cottle & Return Islands, West Dock	n	0	n	0	n	0	n	0	n	0
Midway Islands	n	0	n	0	n	0	n	0	n	0
Cross and No Name Islands	n	0	n	0	n	0	n	0	n	0
Endicott Causeway	n	0	n	0	n	0	n	0	n	0
McClure Islands	n	0	n	0	n	0	n	0	n	0
Stockton Islands	n	0	n	0	n	0	n	0	n	0
Tigvariak Island	n	0	n	0	n	0	n	0	n	0
Maguire Islands	n	0	n	0	n	0	n	0	n	0
Flaxman Island	n	0	n	0	n	0	n	0	n	0
Barrier Islands	n	0	n	0	n	0	n	0	n	0
Anderson Point Barrier Islands	n	0	n	0	n	0	n	0	n	0
Arey and Barter Islands, Bernard Spit	n	0	n	0	n	0	n	0	n	0
Jago and Tapkaurak Spits	n	0	n	0	n	0	n	0	n	0
Angun and Beaufort Lagoons	n	0	n	0	n	0	n	0	n	0
Icy Reef	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 1	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 2	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 3	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 4	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 5	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 6	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 7	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 8	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 9	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 10	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 1	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 2	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 3	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 4	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 5	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 6	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 7	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 9	n	0	n	0	n	0	n	0	n	0
Point Hope Subsistence Area	n	0	n	0	n	0	n	0	n	0
Point Lay Subsistence Area	n	0	n	0	n	0	n	0	n	0
Wainwright Subsistence Area	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 1	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 2	n	0	n	0	n	0	n	0	n	0
Nuiqsut Subsistence Area	n	0	n	0	n	0	n	0	n	0
Kaktovik Subsistence Area	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 21 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow		Nuiqsut		Kaktovik		Eastern	
	Prob	Mean	Subsistence		Subsistence		Subsistence		Deferral	
			Whale	Deferral	Whale	Deferral	Whale	Deferral	Whale	Deferral
Whale Concentration Area	n	0	n	0	n	0	n	0	n	0
Herald Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 10	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 11	n	0	n	0	n	0	n	0	n	0
Hanna's Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 12	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 13	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 14	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 15	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 16a	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 17	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 18a	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 19	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 20a	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 21	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 22	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 23	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 24a	n	0	n	0	n	0	n	0	n	0
Ledyard Bay	n	0	n	0	n	0	n	0	n	0
Peard Bay	n	0	n	0	n	0	n	0	n	0
ERA 1	n	0	n	0	n	0	n	0	n	0
ERA 2	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 16b	1	0	1	0	1	0	1	0	1	0
Harrison Bay	n	0	n	0	n	0	n	0	n	0
Harrison Bay/Colville Delta	n	0	n	0	n	0	n	0	n	0
ERA 3	1	0	1	0	1	0	1	0	1	0
Simpson Lagoon	n	0	n	0	n	0	n	0	n	0
Gwyder Bay	n	0	n	0	n	0	n	0	n	0
Prudhoe Bay	n	0	n	0	n	0	n	0	n	0
Cross Island ERA	n	0	n	0	n	0	n	0	n	0
Water over Boulder Patch 1	n	0	n	0	n	0	n	0	n	0
Water over Boulder Patch 2	n	0	n	0	n	0	n	0	n	0
Foggy Island Bay	n	0	n	0	n	0	n	0	n	0
Mikkelsen Bay	n	0	n	0	n	0	n	0	n	0
ERA 4	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 18b	1	0	1	0	1	0	1	0	1	0
Simpson Cove	n	0	n	0	n	0	n	0	n	0
ERA 5	n	0	n	0	n	0	n	0	n	0
Kaktovik ERA	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 20b	n	0	n	0	n	0	n	0	n	0
ERA 6	n	0	n	0	n	0	n	0	n	0
ERA 7	n	0	n	0	n	0	n	0	n	0
ERA 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 24b	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 22. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral			
	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral	
																Subsistence
Land	2	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0
Kasegaluk Lagoon	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Point Barrow, Plover Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Thetis and Jones Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Cottle & Return Islands, West Dock	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Midway Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Cross and No Name Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Endicott Causeway	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
McClure Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Stockton Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Tigvariak Island	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Maguire Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Flaxman Island	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Barrier Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Anderson Point Barrier Islands	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Arey and Barter Islands, Bernard Spit	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Jago and Tapkaurak Spits	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Angun and Beaufort Lagoons	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Icy Reef	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 1	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 2	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 3	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 4	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 5	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Chukchi Spring Lead 6	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Beaufort Spring Lead 7	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Beaufort Spring Lead 8	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Beaufort Spring Lead 9	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Beaufort Spring Lead 10	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 1	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 2	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 3	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 4	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 5	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 6	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 7	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 8	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Ice/Sea Segment 9	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Point Hope Subsistence Area	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Point Lay Subsistence Area	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Wainwright Subsistence Area	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Barrow Subsistence Area 1	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Barrow Subsistence Area 2	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Nuiqsut Subsistence Area	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0
Kaktovik Subsistence Area	n	0	n	0	0	n	0	0	n	0	0	n	0	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 22 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow Subsistence Whale		Nuiqsut Subsistence Whale		Kaktovik Subsistence Whale		Eastern Deferral	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Whale Concentration Area	n	0	n	0	n	0	n	0	n	0
Herald Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 10	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 11	n	0	n	0	n	0	n	0	n	0
Hanna's Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 12	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 13	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 14	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 15	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 16a	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 17	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 18a	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 19	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 20a	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 21	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 22	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 23	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 24a	n	0	n	0	n	0	n	0	n	0
Ledyard Bay	n	0	n	0	n	0	n	0	n	0
Peard Bay	n	0	n	0	n	0	n	0	n	0
ERA 1	n	0	n	0	n	0	n	0	n	0
ERA 2	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 16b	1	0	1	0	1	0	1	0	1	0
Harrison Bay	n	0	n	0	n	0	n	0	n	0
Harrison Bay/Colville Delta	n	0	n	0	n	0	n	0	n	0
ERA 3	1	0	1	0	1	0	1	0	1	0
Simpson Lagoon	n	0	n	0	n	0	n	0	n	0
Gwyder Bay	n	0	n	0	n	0	n	0	n	0
Prudhoe Bay	n	0	n	0	n	0	n	0	n	0
Cross Island ERA	1	0	1	0	1	0	1	0	1	0
Water over Boulder Patch 1	n	0	n	0	n	0	n	0	n	0
Water over Boulder Patch 2	n	0	n	0	n	0	n	0	n	0
Foggy Island Bay	n	0	n	0	n	0	n	0	n	0
Mikkelsen Bay	n	0	n	0	n	0	n	0	n	0
ERA 4	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 18b	1	0	1	0	1	0	1	0	1	0
Simpson Cove	n	0	n	0	n	0	n	0	n	0
ERA 5	n	0	n	0	n	0	n	0	n	0
Kaktovik ERA	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 20b	1	0	1	0	1	0	1	0	1	0
ERA 6	n	0	n	0	n	0	n	0	n	0
ERA 7	n	0	n	0	n	0	n	0	n	0
ERA 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 24b	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 23. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			
	Prob	Mean		Subsistence			Subsistence			Subsistence			
		Whale	Deferral	Whale	Deferral	Mean	Whale	Deferral	Mean	Whale	Deferral	Mean	
Land	3	0	0	3	0	0	2	0	2	0	0	2	0
Kasegaluk Lagoon	n	0	0	n	0	0	n	0	n	0	0	n	0
Point Barrow, Plover Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Thetis and Jones Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Cottle & Return Islands, West Dock	n	0	0	n	0	0	n	0	n	0	0	n	0
Midway Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Cross and No Name Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Endicott Causeway	n	0	0	n	0	0	n	0	n	0	0	n	0
McClure Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Stockton Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Tigvariak Island	n	0	0	n	0	0	n	0	n	0	0	n	0
Maguire Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Flaxman Island	n	0	0	n	0	0	n	0	n	0	0	n	0
Barrier Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Anderson Point Barrier Islands	n	0	0	n	0	0	n	0	n	0	0	n	0
Arey and Barter Islands, Bernard Spit	n	0	0	n	0	0	n	0	n	0	0	n	0
Jago and Tapkaurak Spits	n	0	0	n	0	0	n	0	n	0	0	n	0
Angun and Beaufort Lagoons	n	0	0	n	0	0	n	0	n	0	0	n	0
Icy Reef	n	0	0	n	0	0	n	0	n	0	0	n	0
Chukchi Spring Lead 1	n	0	0	n	0	0	n	0	n	0	0	n	0
Chukchi Spring Lead 2	n	0	0	n	0	0	n	0	n	0	0	n	0
Chukchi Spring Lead 3	n	0	0	n	0	0	n	0	n	0	0	n	0
Chukchi Spring Lead 4	n	0	0	n	0	0	n	0	n	0	0	n	0
Chukchi Spring Lead 5	n	0	0	n	0	0	n	0	n	0	0	n	0
Beaufort Spring Lead 6	n	0	0	n	0	0	n	0	n	0	0	n	0
Beaufort Spring Lead 7	n	0	0	n	0	0	n	0	n	0	0	n	0
Beaufort Spring Lead 8	n	0	0	n	0	0	n	0	n	0	0	n	0
Beaufort Spring Lead 9	n	0	0	n	0	0	n	0	n	0	0	n	0
Beaufort Spring Lead 10	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 1	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 2	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 3	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 4	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 5	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 6	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 7	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 8	n	0	0	n	0	0	n	0	n	0	0	n	0
Ice/Sea Segment 9	n	0	0	n	0	0	n	0	n	0	0	n	0
Point Hope Subsistence Area	n	0	0	n	0	0	n	0	n	0	0	n	0
Point Lay Subsistence Area	n	0	0	n	0	0	n	0	n	0	0	n	0
Wainwright Subsistence Area	n	0	0	n	0	0	n	0	n	0	0	n	0
Barrow Subsistence Area 1	n	0	0	n	0	0	n	0	n	0	0	n	0
Barrow Subsistence Area 2	n	0	0	n	0	0	n	0	n	0	0	n	0
Nuiqsut Subsistence Area	n	0	0	n	0	0	n	0	n	0	0	n	0
Kaktovik Subsistence Area	n	0	0	n	0	0	n	0	n	0	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 23 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow		Nuiqsut		Kaktovik	
	Prob	Mean	Subsistence		Subsistence		Subsistence	
			Whale	Deferral	Whale	Deferral	Whale	Deferral
Whale Concentration Area	n	0	n	0	n	0	n	0
Herald Shoal Polynya	n	0	n	0	n	0	n	0
Ice/Sea Segment 10	n	0	n	0	n	0	n	0
Ice/Sea Segment 11	n	0	n	0	n	0	n	0
Hanna's Shoal Polynya	n	0	n	0	n	0	n	0
Ice/Sea Segment 12	n	0	n	0	n	0	n	0
Ice/Sea Segment 13	n	0	n	0	n	0	n	0
Ice/Sea Segment 14	n	0	n	0	n	0	n	0
Ice/Sea Segment 15	1	0	1	0	1	0	1	0
Ice/Sea Segment 16a	2	0	2	0	2	0	2	0
Ice/Sea Segment 17	2	0	2	0	2	0	2	0
Ice/Sea Segment 18a	2	0	2	0	1	0	1	0
Ice/Sea Segment 19	2	0	2	0	2	0	2	0
Ice/Sea Segment 20a	1	0	1	0	1	0	1	0
Ice/Sea Segment 21	n	0	n	0	n	0	n	0
Ice/Sea Segment 22	n	0	n	0	n	0	n	0
Ice/Sea Segment 23	n	0	n	0	n	0	n	0
Ice/Sea Segment 24a	n	0	n	0	n	0	n	0
Ledyard Bay	n	0	n	0	n	0	n	0
Peard Bay	n	0	n	0	n	0	n	0
ERA 1	1	0	1	0	1	0	1	0
ERA 2	1	0	1	0	1	0	1	0
Ice/Sea Segment 16b	1	0	1	0	1	0	1	0
Harrison Bay	n	0	n	0	n	0	n	0
Harrison Bay/Colville Delta	n	0	n	0	n	0	n	0
ERA 3	1	0	1	0	1	0	1	0
Simpson Lagoon	n	0	n	0	n	0	n	0
Gwyder Bay	n	0	n	0	n	0	n	0
Prudhoe Bay	n	0	n	0	n	0	n	0
Cross Island ERA	1	0	1	0	1	0	1	0
Water over Boulder Patch 1	n	0	n	0	n	0	n	0
Water over Boulder Patch 2	n	0	n	0	n	0	n	0
Foggy Island Bay	n	0	n	0	n	0	n	0
Mikkelsen Bay	n	0	n	0	n	0	n	0
ERA 4	n	0	n	0	n	0	n	0
Ice/Sea Segment 18b	1	0	1	0	1	0	1	0
Simpson Cove	n	0	n	0	n	0	n	0
ERA 5	n	0	n	0	n	0	n	0
Kaktovik ERA	1	0	1	0	1	0	1	0
Ice/Sea Segment 20b	1	0	1	0	1	0	1	0
ERA 6	n	0	n	0	n	0	n	0
ERA 7	n	0	n	0	n	0	n	0
ERA 8	n	0	n	0	n	0	n	0
Ice/Sea Segment 24b	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 24. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow Subsistence Whale		Nuiqsut Subsistence Whale		Kaktovik Subsistence Whale		Eastern Deferral	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	5	0	5	0	4	0	4	0	4	0
Kasegaluk Lagoon	n	0	n	0	n	0	n	0	n	0
Point Barrow, Plover Islands	n	0	n	0	n	0	n	0	n	0
Thetis and Jones Islands	1	0	1	0	1	0	1	0	1	0
Cottle & Return Islands, West Dock	n	0	n	0	n	0	n	0	n	0
Midway Islands	n	0	n	0	n	0	n	0	n	0
Cross and No Name Islands	n	0	n	0	n	0	n	0	n	0
Endicott Causeway	n	0	n	0	n	0	n	0	n	0
McClure Islands	n	0	n	0	n	0	n	0	n	0
Stockton Islands	n	0	n	0	n	0	n	0	n	0
Tigvariak Island	n	0	n	0	n	0	n	0	n	0
Maguire Islands	n	0	n	0	n	0	n	0	n	0
Flaxman Island	n	0	n	0	n	0	n	0	n	0
Barrier Islands	n	0	n	0	n	0	n	0	n	0
Anderson Point Barrier Islands	n	0	n	0	n	0	n	0	n	0
Arey and Barter Islands, Bernard Spit	n	0	n	0	n	0	n	0	n	0
Jago and Tapkaurak Spits	n	0	n	0	n	0	n	0	n	0
Angun and Beaufort Lagoons	n	0	n	0	n	0	n	0	n	0
Icy Reef	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 1	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 2	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 3	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 4	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 5	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 6	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 7	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 8	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 9	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 10	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 1	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 2	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 3	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 4	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 5	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 6	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 7	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 9	n	0	n	0	n	0	n	0	n	0
Point Hope Subsistence Area	n	0	n	0	n	0	n	0	n	0
Point Lay Subsistence Area	n	0	n	0	n	0	n	0	n	0
Wainwright Subsistence Area	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 1	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 2	n	0	n	0	n	0	n	0	n	0
Nuiqsut Subsistence Area	n	0	n	0	n	0	n	0	n	0
Kaktovik Subsistence Area	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 24 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral		
	Prob	Mean	n	Subsistence Whale		Mean	Subsistence Whale		Mean	Subsistence Whale		Mean	Subsistence Whale		Mean
				Deferral	Mean		Deferral	Mean		Deferral	Mean		Deferral	Mean	
Whale Concentration Area	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Herald Shoal Polynya	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 10	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 11	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Hanna's Shoal Polynya	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 12	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 13	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 14	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 15	2	0	2	n	2	0	2	n	2	0	2	n	2	0	
Ice/Sea Segment 16a	2	0	2	n	2	0	2	n	2	0	2	n	2	0	
Ice/Sea Segment 17	2	0	2	n	2	0	2	n	2	0	2	n	2	0	
Ice/Sea Segment 18a	2	0	2	n	2	0	2	n	2	0	2	n	2	0	
Ice/Sea Segment 19	2	0	2	n	2	0	2	n	2	0	2	n	2	0	
Ice/Sea Segment 20a	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Ice/Sea Segment 21	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Ice/Sea Segment 22	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 23	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 24a	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ledyard Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Peard Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
ERA 1	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
ERA 2	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Ice/Sea Segment 16b	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Harrison Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Harrison Bay/Colville Delta	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
ERA 3	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Simpson Lagoon	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Gwyder Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Prudhoe Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Cross Island ERA	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Water over Boulder Patch 1	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Water over Boulder Patch 2	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Foggy Island Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Mikkelsen Bay	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
ERA 4	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Ice/Sea Segment 18b	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Simpson Cove	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
ERA 5	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Kaktovik ERA	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
Ice/Sea Segment 20b	1	0	1	n	1	0	1	n	1	0	1	n	1	0	
ERA 6	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
ERA 7	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
ERA 8	n	0	0	n	0	0	n	0	0	n	0	n	0	0	
Ice/Sea Segment 24b	n	0	0	n	0	0	n	0	0	n	0	n	0	0	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 25. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow Subsistence Whale		Nuiqsut Subsistence Whale		Kaktovik Subsistence Whale		Eastern Deferral	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Land	7	0.1	6	0.1	6	0.1	6	0.1	6	0.1
Kasegaluk Lagoon	n	0	n	0	n	0	n	0	n	0
Point Barrow, Plover Islands	1	0	1	0	1	0	1	0	1	0
Thetis and Jones Islands	1	0	1	0	1	0	1	0	1	0
Cottle & Return Islands, West Dock	n	0	n	0	n	0	n	0	n	0
Midway Islands	n	0	n	0	n	0	n	0	n	0
Cross and No Name Islands	n	0	n	0	n	0	n	0	n	0
Endicott Causeway	n	0	n	0	n	0	n	0	n	0
McClure Islands	n	0	n	0	n	0	n	0	n	0
Stockton Islands	n	0	n	0	n	0	n	0	n	0
Tigvariak Island	n	0	n	0	n	0	n	0	n	0
Maguire Islands	n	0	n	0	n	0	n	0	n	0
Flaxman Island	n	0	n	0	n	0	n	0	n	0
Barrier Islands	n	0	n	0	n	0	n	0	n	0
Anderson Point Barrier Islands	n	0	n	0	n	0	n	0	n	0
Arey and Barter Islands, Bernard Spit	n	0	n	0	n	0	n	0	n	0
Jago and Tapkaurak Spits	n	0	n	0	n	0	n	0	n	0
Angun and Beaufort Lagoons	n	0	n	0	n	0	n	0	n	0
Icy Reef	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 1	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 2	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 3	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 4	n	0	n	0	n	0	n	0	n	0
Chukchi Spring Lead 5	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 6	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 7	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 8	n	0	n	0	n	0	n	0	n	0
Beaufort Spring Lead 9	1	0	1	0	1	0	1	0	1	0
Beaufort Spring Lead 10	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 1	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 2	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 3	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 4	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 5	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 6	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 7	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 9	n	0	n	0	n	0	n	0	n	0
Point Hope Subsistence Area	n	0	n	0	n	0	n	0	n	0
Point Lay Subsistence Area	n	0	n	0	n	0	n	0	n	0
Wainwright Subsistence Area	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 1	n	0	n	0	n	0	n	0	n	0
Barrow Subsistence Area 2	1	0	1	0	1	0	1	0	1	0
Nuiqsut Subsistence Area	n	0	n	0	n	0	n	0	n	0
Kaktovik Subsistence Area	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 25 (Continued). Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain environmental resource area over the assumed production life of the lease area within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Proposal (Alternative I)		Barrow Subsistence Whale		Nuiqsut Subsistence Whale		Kaktovik Subsistence Whale		Eastern Deferral	
	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean	Prob	Mean
Whale Concentration Area	n	0	n	0	n	0	n	0	n	0
Herald Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 10	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 11	n	0	n	0	n	0	n	0	n	0
Hanna's Shoal Polynya	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 12	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 13	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 14	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 15	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 16a	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 17	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 18a	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 19	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 20a	2	0	2	0	2	0	2	0	2	0
Ice/Sea Segment 21	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 22	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 23	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 24a	n	0	n	0	n	0	n	0	n	0
Ledyard Bay	n	0	n	0	n	0	n	0	n	0
Peard Bay	n	0	n	0	n	0	n	0	n	0
ERA 1	1	0	1	0	1	0	1	0	1	0
ERA 2	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 16b	2	0	2	0	2	0	2	0	2	0
Harrison Bay	1	0	1	0	1	0	1	0	1	0
Harrison Bay/Colville Delta	1	0	1	0	1	0	1	0	1	0
ERA 3	2	0	2	0	2	0	2	0	2	0
Simpson Lagoon	1	0	1	0	1	0	1	0	1	0
Gwyder Bay	n	0	n	0	n	0	n	0	n	0
Prudhoe Bay	n	0	n	0	n	0	n	0	n	0
Cross Island ERA	1	0	1	0	1	0	1	0	1	0
Water over Boulder Patch 1	n	0	n	0	n	0	n	0	n	0
Water over Boulder Patch 2	n	0	n	0	n	0	n	0	n	0
Foggy Island Bay	n	0	n	0	n	0	n	0	n	0
Mikkelsen Bay	n	0	n	0	n	0	n	0	n	0
ERA 4	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 18b	1	0	1	0	1	0	1	0	1	0
Simpson Cove	n	0	n	0	n	0	n	0	n	0
ERA 5	1	0	1	0	1	0	1	0	1	0
Kaktovik ERA	1	0	1	0	1	0	1	0	1	0
Ice/Sea Segment 20b	1	0	1	0	1	0	1	0	1	0
ERA 6	n	0	n	0	n	0	n	0	n	0
ERA 7	n	0	n	0	n	0	n	0	n	0
ERA 8	n	0	n	0	n	0	n	0	n	0
Ice/Sea Segment 24b	n	0	n	0	n	0	n	0	n	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table 26. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Barrow			Nuiqsut			Kaktovik			
		Proposal (Alternative J)			Subsistence			Subsistence			
		Prob	Mean	Prob	Prob	Mean	Prob	Mean	Prob	Mean	Eastern Deferral

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 27. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Barrow			Nuiqsut			Kaktovik			
		Proposal (Alternative J)			Subsistence			Subsistence			
		Prob	Mean	Prob	Prob	Mean	Prob	Mean	Prob	Mean	Eastern Deferral

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 28. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Barrow			Nuiqsut			Kaktovik			
		Proposal (Alternative J)			Subsistence			Subsistence			
		Prob	Mean	Prob	Prob	Mean	Prob	Mean	Prob	Mean	Eastern Deferral

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 29. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral		
		Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 30. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral		
		Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 31. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain land segment over the assumed production life of the lease area within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Proposal (Alternative I)			Barrow			Nuiqsut			Kaktovik			Eastern Deferral		
		Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean	Prob	Mean	Mean
31	Lonely AFS Airport, Pitt Point, Pogik Bay	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0
32	Cape Halkett	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 32. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik		
	Subsistence			Subsistence			Subsistence		
	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral
Proposal (Alternative I)	Whale			Whale			Whale		
	Eastern Deferral			Eastern Deferral			Eastern Deferral		
	Mean			Mean			Mean		

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 33. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik		
	Subsistence			Subsistence			Subsistence		
	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral
Proposal (Alternative I)	Whale			Whale			Whale		
	Eastern Deferral			Eastern Deferral			Eastern Deferral		
	Mean			Mean			Mean		

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 34. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik		
	Subsistence			Subsistence			Subsistence		
	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean	Deferral
Proposal (Alternative I)	Whale			Whale			Whale		
	Eastern Deferral			Eastern Deferral			Eastern Deferral		
	Mean			Mean			Mean		

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 35. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik			
	Proposal (Alternative I)		Subsistence	Subsistence		Whale	Subsistence		Whale	Eastern
	Prob	Mean	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 36. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik			
	Proposal (Alternative I)		Subsistence	Subsistence		Whale	Subsistence		Whale	Eastern
	Prob	Mean	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table 37. Combined probabilities (expressed as percent chance) of one or more spills greater than or equal to 1,000 barrels, and the estimated number of spills (mean), occurring and contacting a certain boundary segment over the assumed production life of the lease area within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Barrow			Nuiqsut			Kaktovik			
	Proposal (Alternative I)		Subsistence	Subsistence		Whale	Subsistence		Whale	Eastern
	Prob	Mean	Prob	Mean	Deferral	Prob	Mean	Deferral	Prob	Mean
27	1	0	1	0	1	0	1	0	1	0

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Appendix A

Locations of Environmental Resource Areas

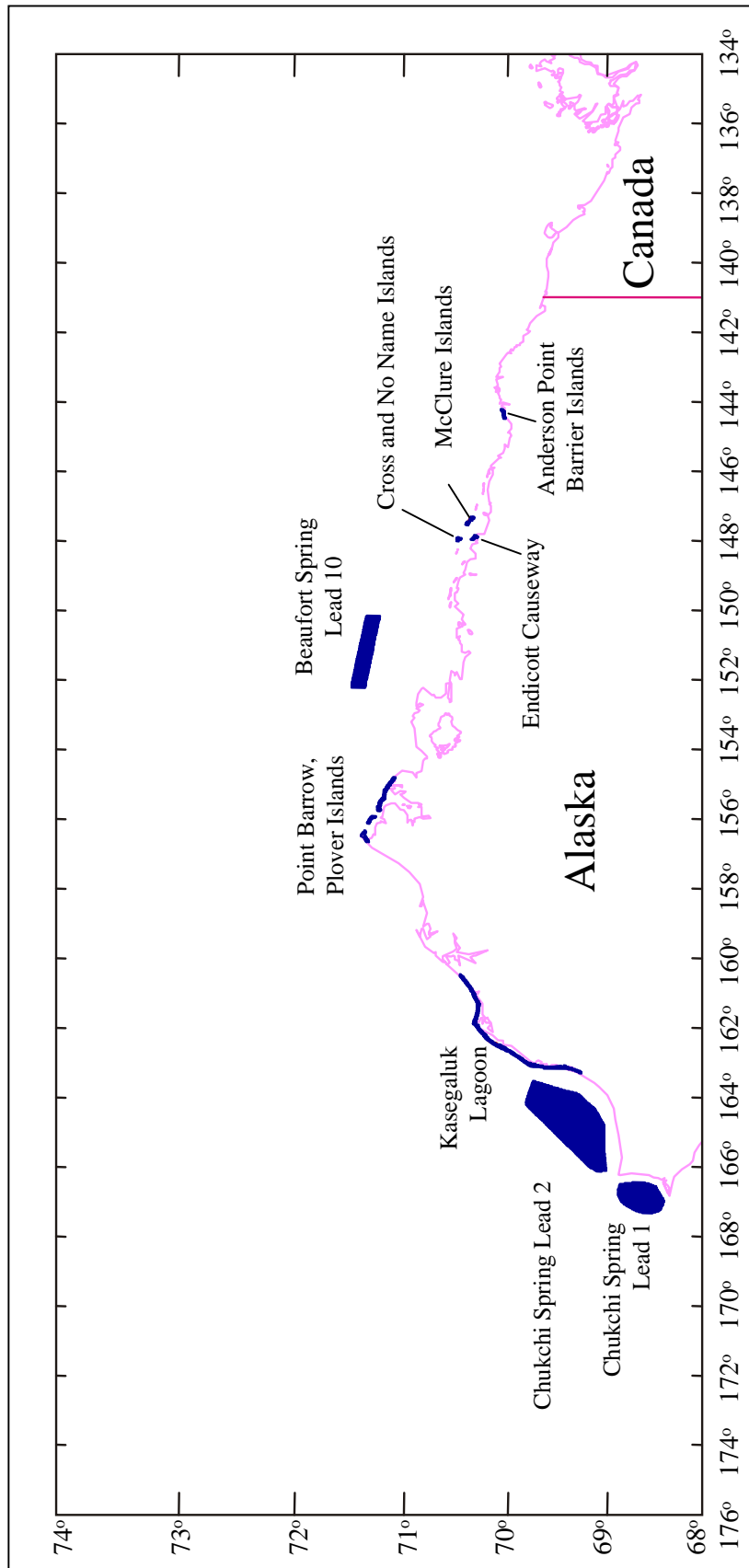


Figure A-1. Locations of Chukchi Spring Lead 1; Chukchi Spring Lead 2; Kasegaluk Lagoon; Point Barrow, Plover Islands; Beaufort Spring Lead 10; Cross and No Name Islands; McClure Islands; Endicott Causeway; and Anderson Point Barrier Islands, Beaufort Sea Planning Area, Sales 186, 195, and 202.

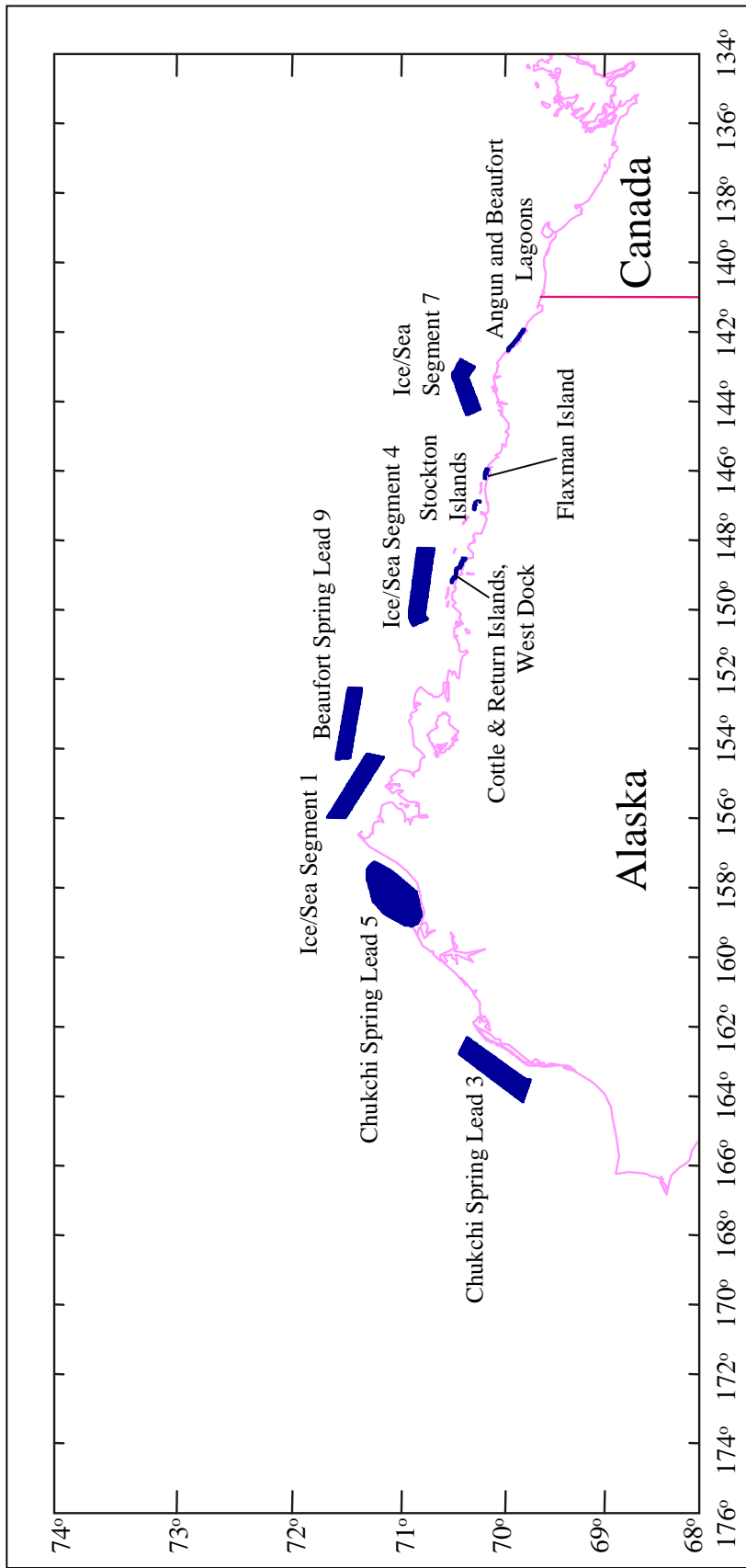


Figure A-2. Locations of Chukchi Spring Lead 3; Chukchi Spring Lead 5; Ice/Sea Segment 1; Beaufort Spring Lead 9; Ice/Sea Segment 4; Cottle & Return Islands, West Dock; Stockton Islands; Flaxman Island; Ice/Sea Segment 7; and Angun and Beaufort Lagoons, Beaufort Sea Planning Area, Sales 186, 195, and 202.

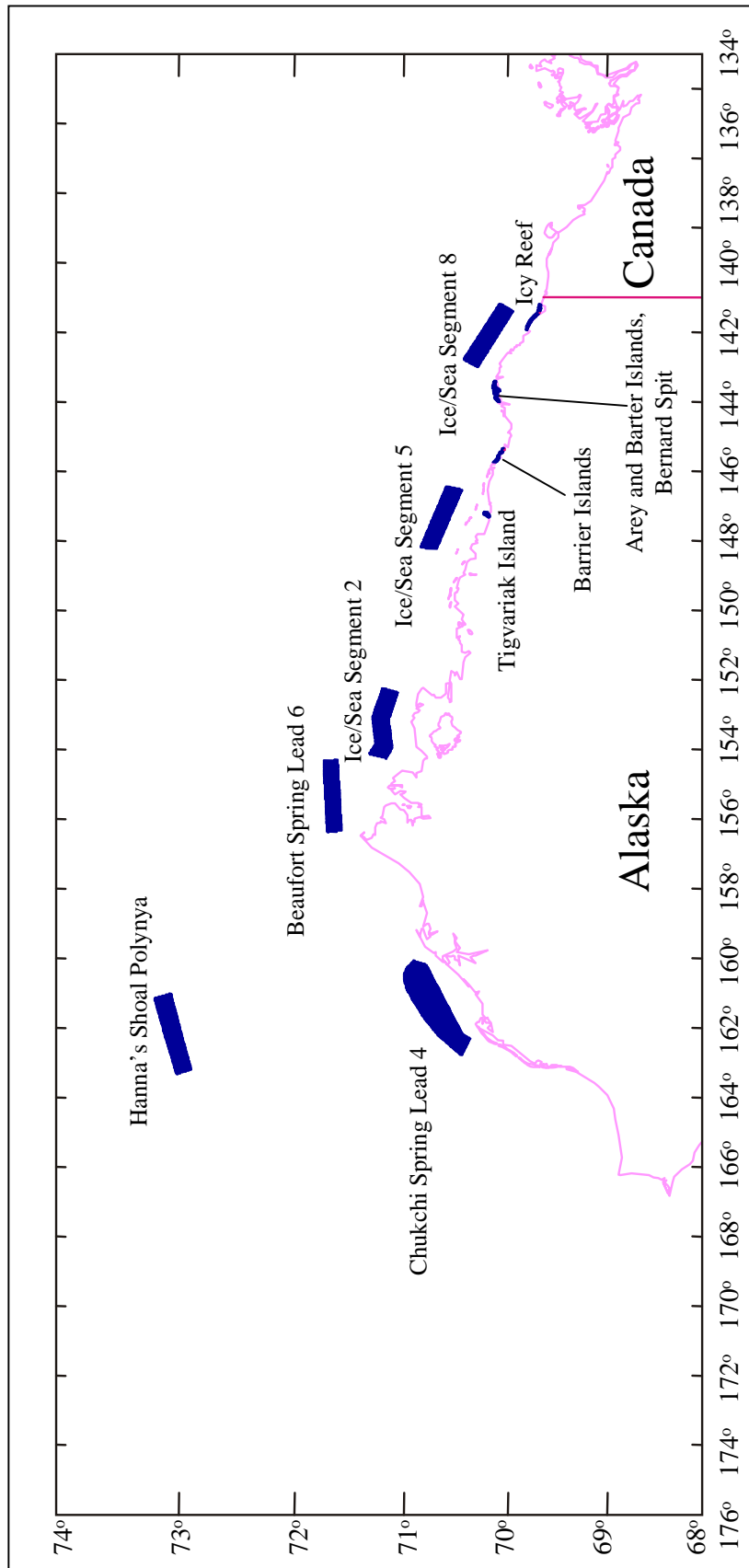


Figure A-3. Locations of Hanna's Shoal Polynya; Chukchi Spring Lead 4; Beaufort Spring Lead 6; Ice/Sea Segment 2; Ice/Sea Segment 5; Ice/Sea Segment 8; Tigvariak Island; Barrier Islands; Arey and Barter Islands, Bernard Spit; and Icy Reef, Beaufort Sea Planning Area, Sales 186, 195, and 202.

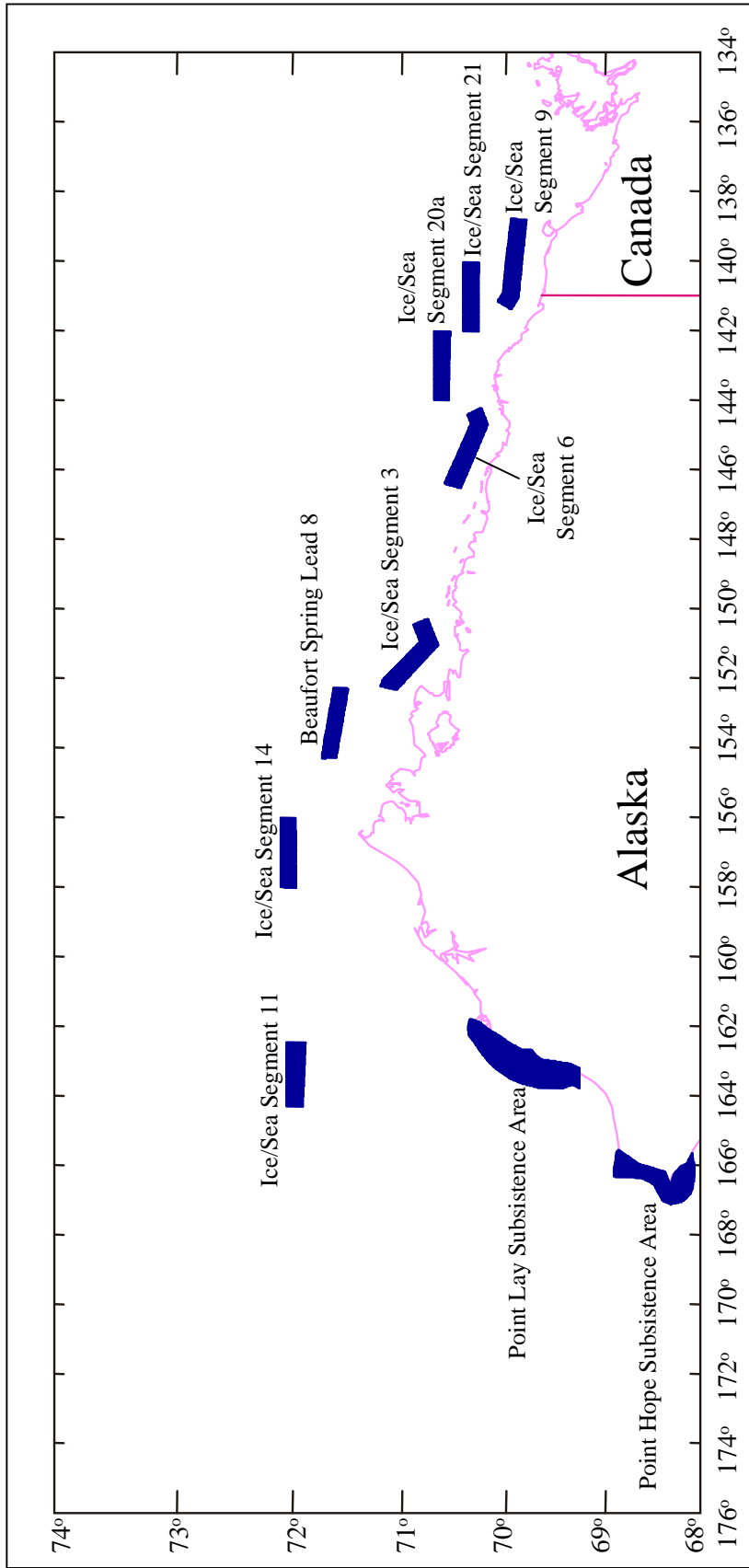


Figure A-4. Locations of Point Hope Subsistence Area; Point Lay Subsistence Area; Ice/Sea Segment 11; Ice/Sea Segment 14; Beaufort Spring Lead 8; Ice/Sea Segment 3; Ice/Sea Segment 6; Ice/Sea Segment 20a; Ice/Sea Segment 21; and Ice/Sea Segment 9, Beaufort Sea Planning Area, Sales 186, 195, and 202.

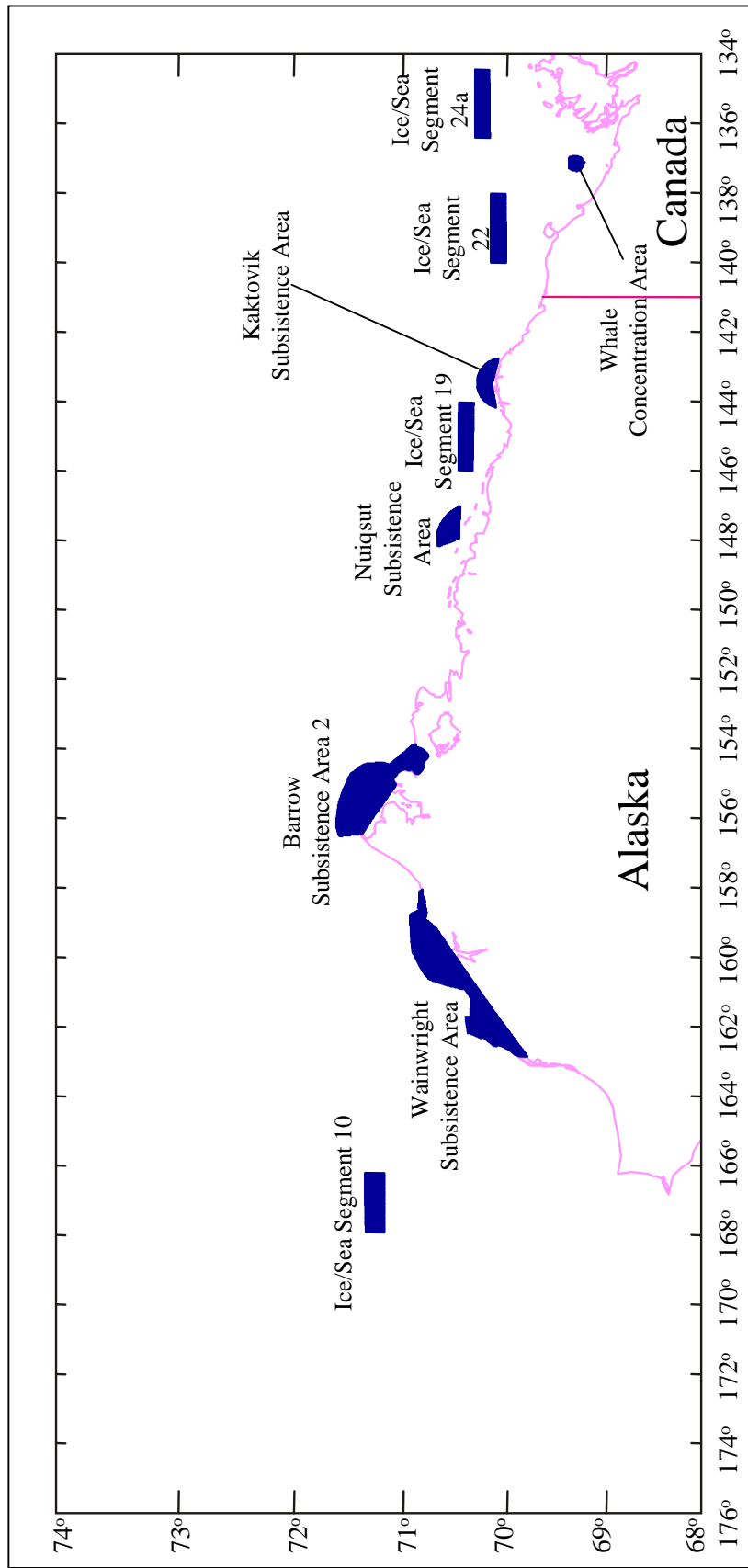


Figure A-5. Locations of Ice/Sea Segment 10; Wainwright Subsistence Area; Barrow Subsistence Area 2; Nuiqsut Subsistence Area; Ice/Sea Segment 19; Kaktovik Subsistence Area; Ice/Sea Segment 22; Ice/Sea Segment 24a; and Whale Concentration Area, Beaufort Sea Planning Area, Sales 186, 195, and 202.

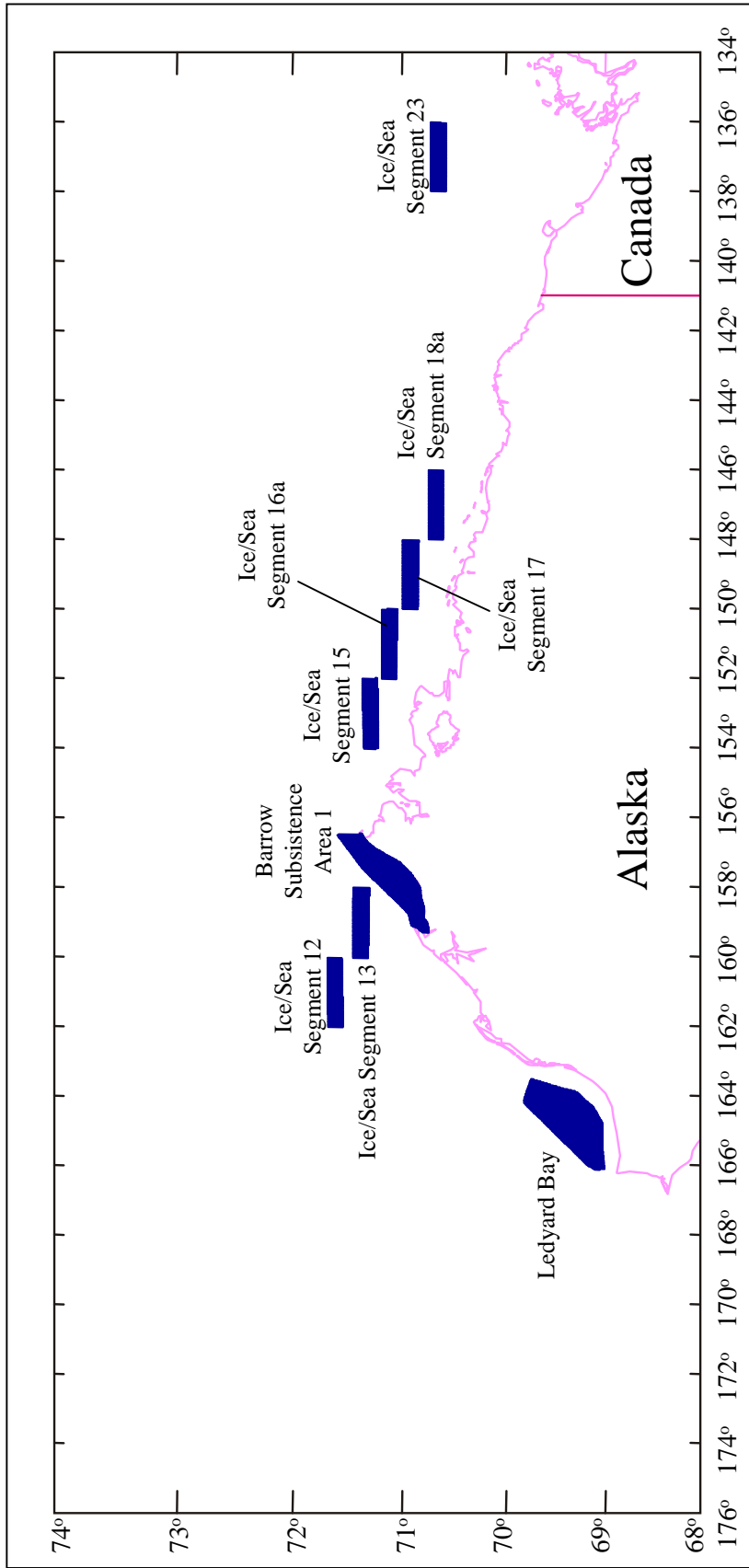


Figure A-6. Locations of Ledyard Bay; Ice/Sea Segment 12; Ice/Sea Segment 13; Barrow Subsistence Area 1; Ice/Sea Segment 15; Ice/Sea Segment 16a; Ice/Sea Segment 17; Ice/Sea Segment 18a; and Ice/Sea Segment 23, Beaufort Sea Planning Area, Sales 186, 195, and 202.

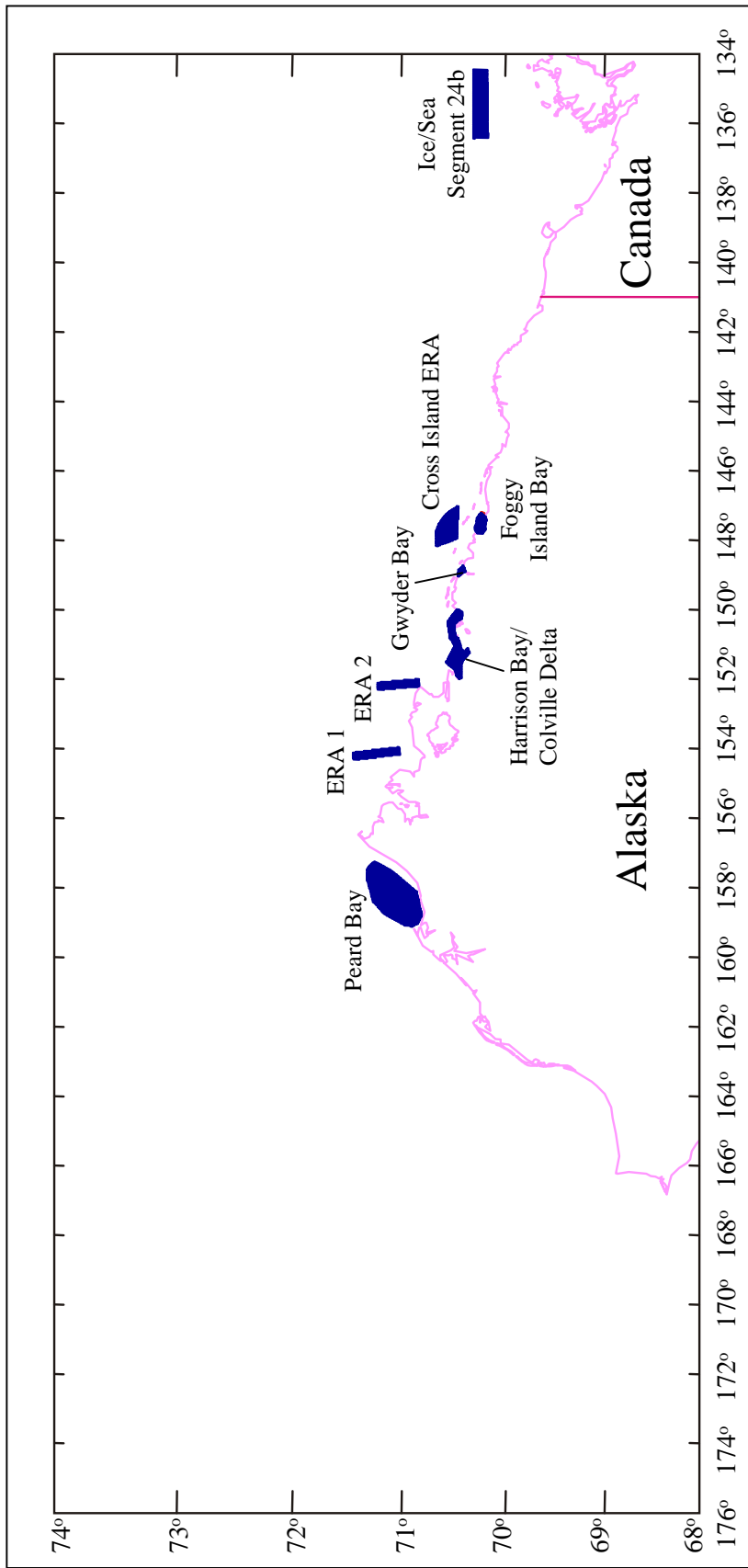


Figure A-7. Locations of Peard Bay; ERA 1; ERA 2; Harrison Bay/Colville Delta; Gwydyer Bay; Cross Island ERA; Foggy Island Bay; and Ice/Sea Segment 24b, Beaufort Sea Planning Area, Sales 186, 195, and 202.

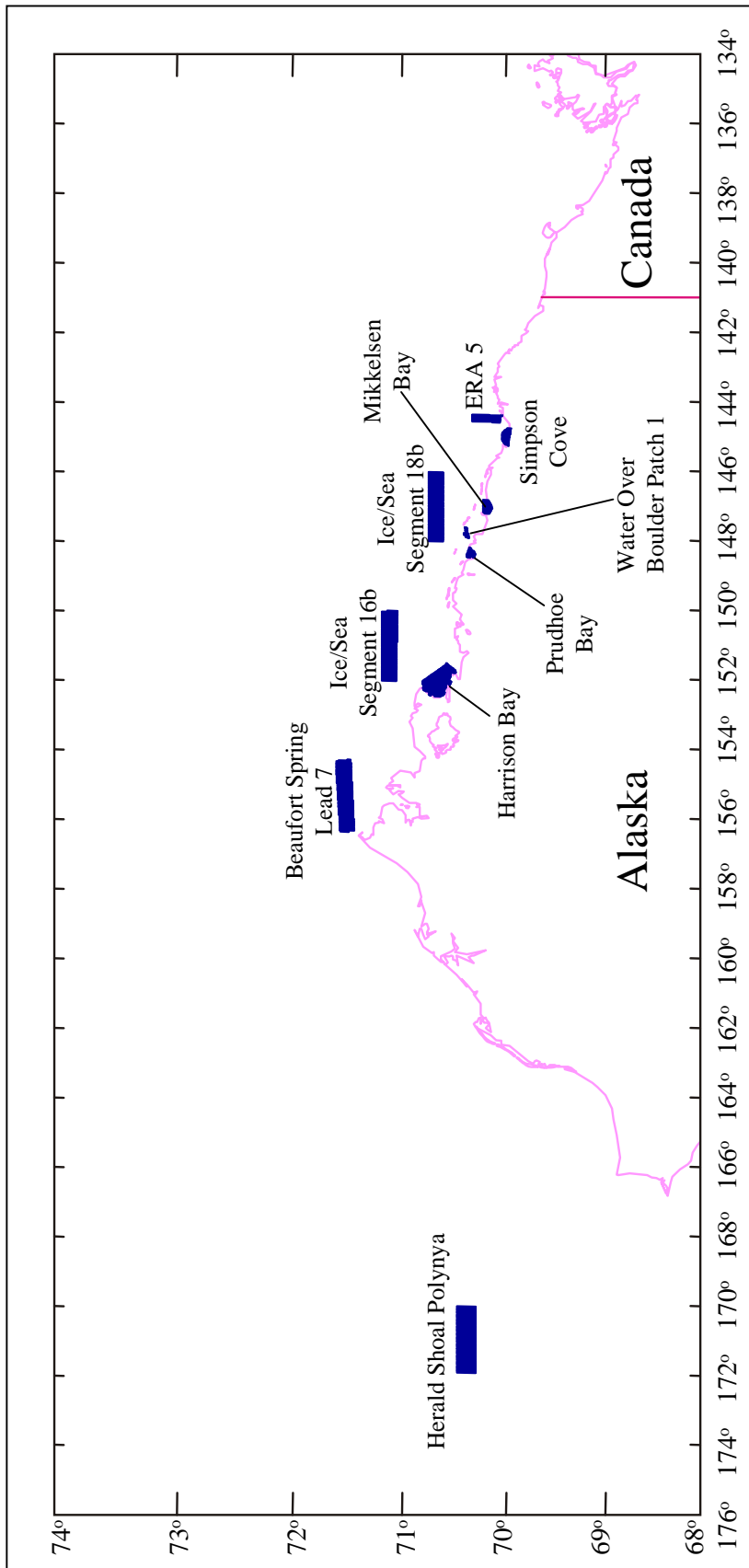


Figure A-8. Locations of Herald Shoal Polynya; Beaufort Spring Lead 7; Ice/Sea Segment 16b; Harrison Bay; Prudhoe Bay; Water Over Boulder Patch 1; Ice/Sea Segment 18b; Mikkelsen Bay; Simpson Cove; and ERA 5, Beaufort Sea Planning Area, Sales 186, 195, and 202.

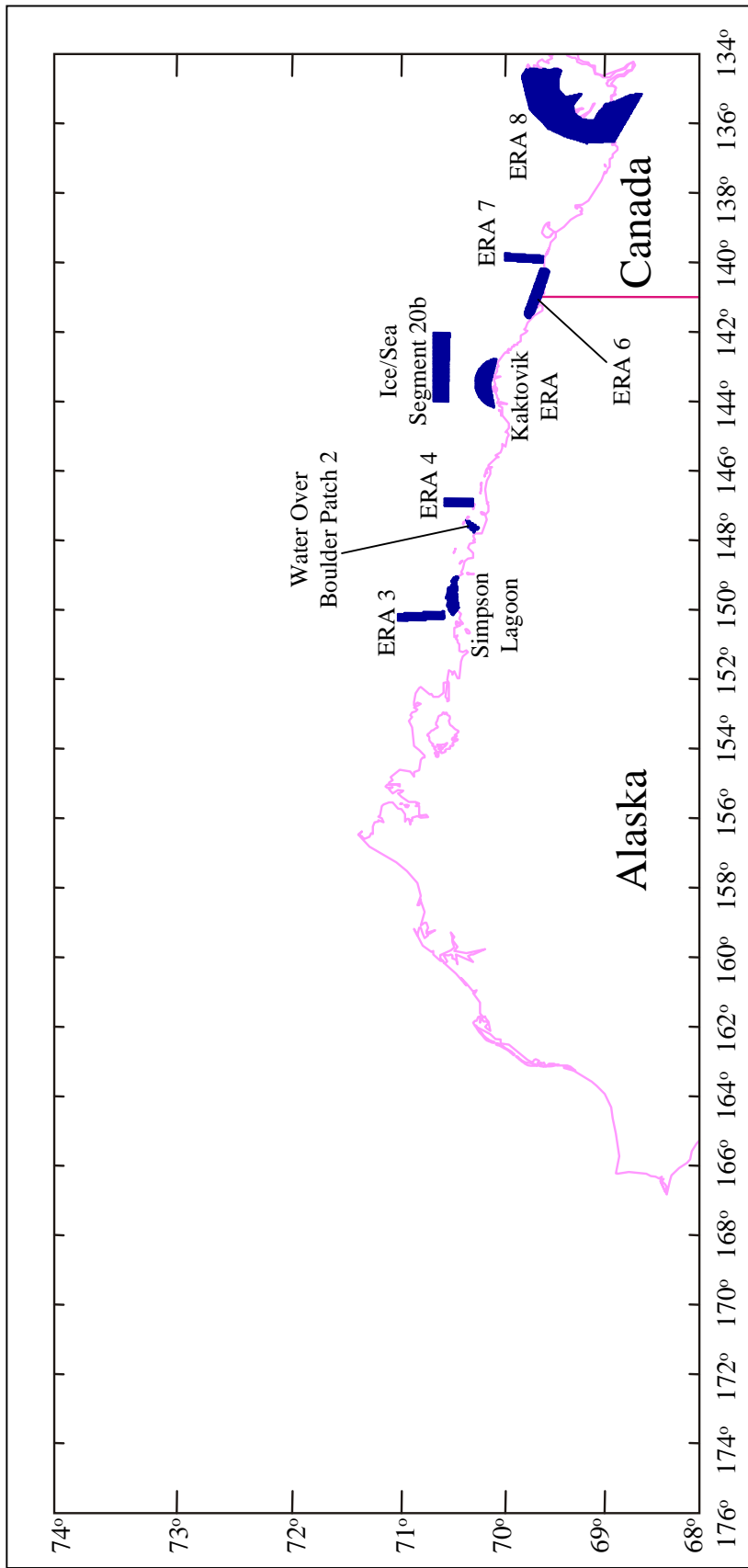


Figure A-9. Locations of ERA 3; Simpson Lagoon; Water Over Boulder Patch 2; ERA 4; Ice/Sea Segment 20b; Kaktovik ERA; ERA 6; ERA 7; and ERA 8, Beaufort Sea Planning Area, Sales 186, 195, and 202.

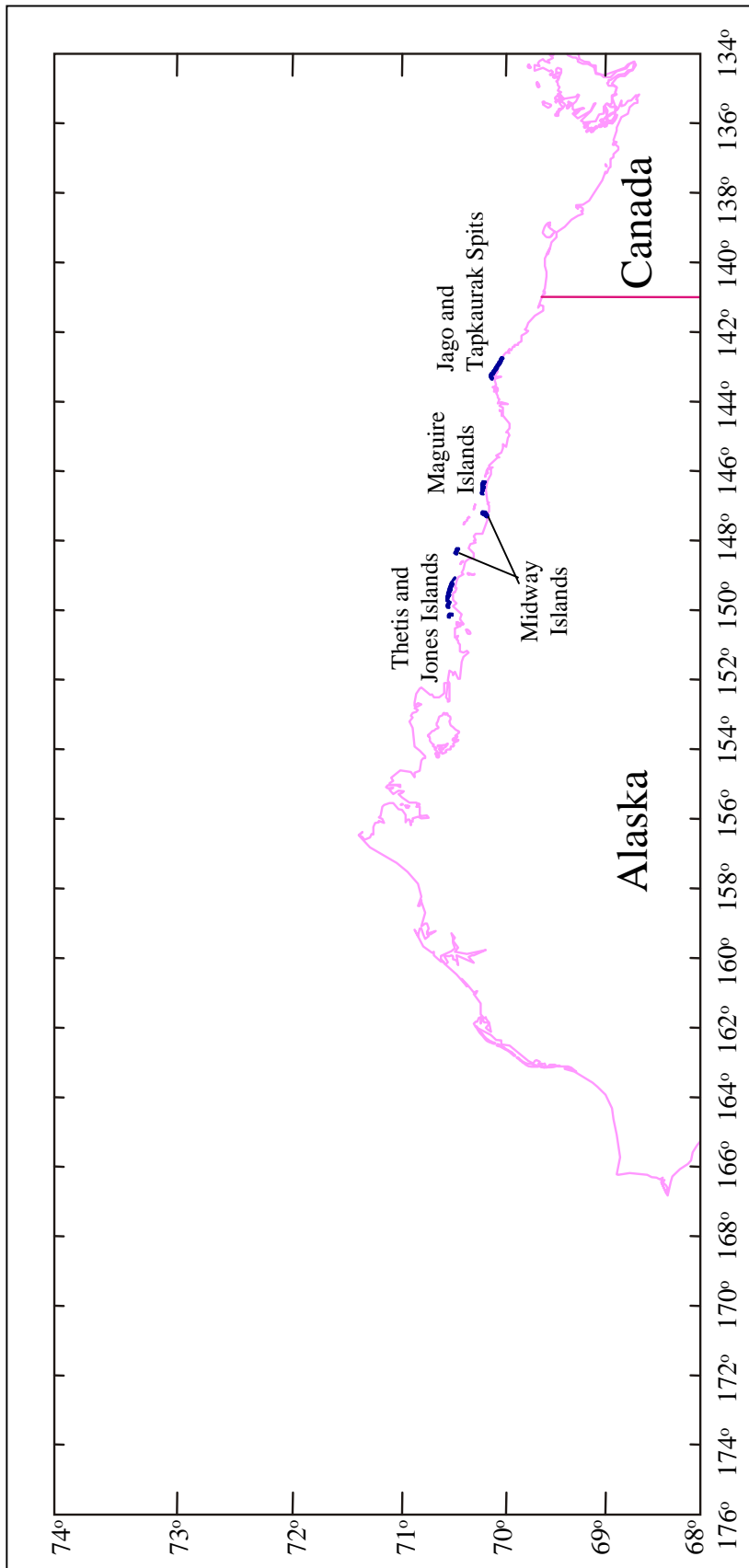


Figure A-10. Locations of Thetis and Jones Islands; Midway Islands; Maguire Islands; and Jago and Tapkaurak Spits, Beaufort Sea Planning Area, Sales 186, 195, and 202.

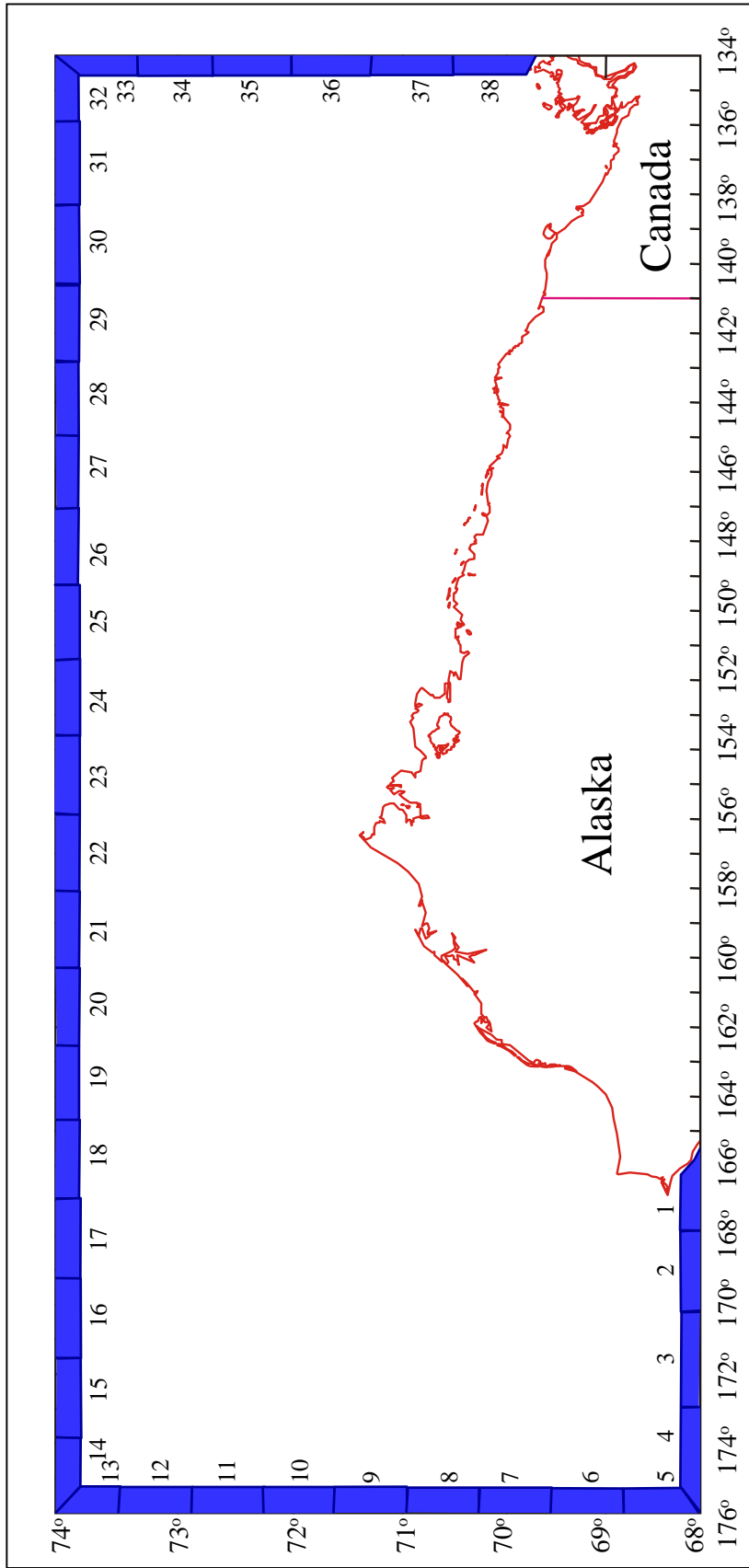


Figure A-11. Locations of Boundary Segments, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Appendix B

Summer Conditional Probabilities

Table B-1 (Continued). Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	1	3	16	41	25	35	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	2	12	5	38	1	2	3	36	3	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay/Colville Delta	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-2. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																			
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20
Land	17	43	14	41	12	35	9	33	4	17	3	17	3	1	10	4	24	43	25	20
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	13	32	5	9	1	2	n	n	n	n	n	n	n	n	n	n	n	n	17	4
Thetis and Jones Islands	n	n	n	n	n	n	2	4	5	16	3	5	1	n	n	n	n	n	4	11
Cottle & Return Islands, West Dock	n	n	n	n	n	n	n	1	2	7	2	8	1	n	n	n	n	n	1	4
Midway Islands	n	n	n	n	n	n	n	n	n	3	1	4	1	n	n	n	n	n	2	2
Cross and No Name Islands	n	n	n	n	n	n	n	n	n	2	1	7	1	n	n	n	n	n	1	3
Endicott Causeway	n	n	n	n	n	n	n	n	n	1	n	2	n	n	n	n	n	n	n	n
McClure Islands	n	n	n	n	n	n	n	n	n	1	n	6	1	n	2	n	n	n	1	1
Stockton Islands	n	n	n	n	n	n	n	n	n	n	n	4	n	n	2	n	n	n	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	n	n	n	3	n	2	n	n	n	n	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	n	2	1	n	2	n	1	n	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	3	n	n	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	3	n	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	11	4	n	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	7	10	n	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	10	n	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	12	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 1	15	30	8	10	3	3	1	1	n	n	n	n	n	n	n	n	n	n	22	5
Ice/Sea Segment 2	4	8	13	27	14	21	5	4	2	1	n	n	n	n	n	n	n	n	9	22
Ice/Sea Segment 3	1	1	3	3	5	16	15	29	8	10	3	1	1	n	n	n	n	n	2	8
Ice/Sea Segment 4	n	n	n	n	n	1	6	6	16	29	14	12	5	1	1	n	n	n	1	12
Ice/Sea Segment 5	n	n	n	n	n	n	n	n	n	1	5	7	26	14	4	9	1	1	n	n
Ice/Sea Segment 6	n	n	n	n	n	n	n	n	n	n	n	6	4	5	32	2	20	1	n	n
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	n	n	n	3	5	10	20	9	n	n	n	n
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	4	13	n	n
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	6	n	n
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 2	32	69	16	30	7	8	1	1	n	n	n	n	n	n	n	n	n	n	44	12
Nuiqsut Subistence Area	n	n	n	n	n	n	n	n	n	1	5	4	37	8	2	4	n	n	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	5	6	26	23	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-2 (Continued). Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	7	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	6	10	29	51	38	45	10	7	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16a	1	1	4	4	11	24	60	39	34	16	6	2	1	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 17	n	n	n	n	1	1	8	7	44	47	50	24	13	1	2	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	1	6	8	55	46	18	22	1	1	n	n	n	n	n	n	n
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	5	4	9	63	19	56	2	n	n	n	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	1	1	7	10	45	24	8	n	n	n	n	n	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	3	7	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	7	21	14	49	7	9	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 2	1	2	5	8	9	43	10	19	3	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16b	1	1	4	4	11	24	60	39	34	16	6	2	1	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay	n	n	n	n	1	1	7	3	19	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay/Colville Delta	n	n	n	n	n	2	4	17	2	8	1	1	n	n	n	n	n	n	n	n	n	n	n	n
ERA 3	n	n	n	n	1	2	15	19	28	43	7	5	1	n	n	n	n	n	n	n	n	n	n	n
Simpson Lagoon	n	n	n	n	n	1	4	3	12	2	5	1	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	2	n	2	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	1	6	4	50	9	2	4	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	2	1	9	1	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	1	n	8	1	n	2	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	4	n	n	1	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	3	n	n	32	6	2	9	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	2	2	32	6	2	9	n	1	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	1	6	8	55	46	18	22	1	1	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	2	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	1	n	2	9	2	40	2	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	2	5	8	35	32	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	1	1	7	10	45	24	8	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	21	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-3 (Continued). Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ERA 2	12	24	21	53	16	17	7	6	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 16b	4	5	9	11	15	46	18	24	9	8	5	2	2	2	2	2	2	2	2	2	2	2	2	2
Harrison Bay	4	3	11	8	20	30	66	48	47	33	20	11	8	2	2	2	2	2	2	2	2	2	2	2
Harrison Bay/Colville Delta	1	1	2	2	3	10	8	23	5	6	3	2	1	1	1	1	1	1	1	1	1	1	1	1
ERA 3	1	1	2	2	3	5	10	22	9	16	5	3	1	1	1	1	1	1	1	1	1	1	1	1
Simpson Lagoon	1	n	3	1	6	6	22	26	38	53	21	15	10	2	2	2	2	2	2	2	2	2	2	2
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-4. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Land	55	72	53	72	50	68	47	63	41	53	32	47	29	27	40	38	55	78
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	30	44	18	18	11	9	5	4	3	2	1	1	n	n	n	n	33	13
Thetis and Jones Islands	1	n	1	2	2	6	8	14	24	15	11	3	4	1	1	n	1	3
Cottle & Return Islands, West Dock	n	n	n	n	1	1	2	3	6	11	9	14	8	3	4	1	n	n
Midway Islands	n	n	n	n	n	1	1	2	5	2	7	3	1	2	n	1	n	n
Cross and No Name Islands	n	n	n	n	n	1	1	2	4	2	10	4	2	3	n	1	n	n
Endicott Causeway	n	n	n	n	n	n	n	1	2	1	2	1	3	1	n	1	n	n
McClure Islands	n	n	n	n	n	n	n	1	1	2	1	6	2	1	3	n	1	n
Stockton Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	1	1	4	1	1	3	n	1	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	3	2	2	3	n	1	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	1	n	2	1	2	1	5	1	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	n
Arex and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	1	1	3	6	6	16	5	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	n	n	1	2	6	8	10	13	13	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	1	1	3	3	5	4	13	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	1	1	2	3	5	6	17	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 1	22	33	17	16	12	9	5	4	3	2	2	1	n	n	n	n	27	13
Ice/Sea Segment 2	9	12	20	30	22	26	15	9	10	7	7	3	4	1	1	n	15	29
Ice/Sea Segment 3	5	5	10	8	13	21	24	35	19	20	13	8	7	3	2	2	n	7
Ice/Sea Segment 4	4	1	4	2	4	4	12	12	24	36	25	23	20	7	7	1	n	3
Ice/Sea Segment 5	n	n	1	1	1	1	3	3	7	10	13	21	10	14	2	3	n	1
Ice/Sea Segment 6	n	n	n	n	n	n	n	1	1	2	2	10	8	9	36	4	23	2
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	1	1	4	4	11	13	17	26	11	n
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	3	3	10	10	15	14	19	n
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	1	2	5	5	12	11	16	n
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	1	1
Barrow Subistence Area 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 2	49	75	36	44	25	21	13	9	7	5	3	2	1	n	n	n	57	29
Nuiqsut Subistence Area	n	n	1	1	1	1	2	3	5	10	9	41	14	7	9	1	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	1	n	3	3	11	16	17	34	26

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-4 (Continued). Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	2	2	2	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n
Ice/Sea Segment 11	3	1	3	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n
Hanna's Shoal Polynya	3	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n
Ice/Sea Segment 12	6	4	3	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	5	1	n	n	n	n
Ice/Sea Segment 13	18	9	10	5	6	2	1	n	n	n	n	n	n	n	n	n	n	n	11	4	1	1	n	n
Ice/Sea Segment 14	15	16	39	53	48	48	20	13	13	9	4	5	1	1	1	n	n	n	24	80	16	10	7	1
Ice/Sea Segment 15	8	6	15	11	23	31	67	49	36	23	14	10	4	4	2	2	n	n	10	21	78	42	19	6
Ice/Sea Segment 16a	4	1	4	3	6	6	17	16	53	57	60	37	32	10	8	1	1	n	2	5	24	**	64	9
Ice/Sea Segment 17	n	n	1	n	1	1	4	4	8	12	15	59	50	23	27	3	4	n	n	3	9	57	46	2
Ice/Sea Segment 18a	n	n	n	n	n	n	1	1	2	3	3	11	8	15	67	22	59	4	n	n	n	2	7	29
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	1	2	3	8	22	27	57	38	14	n	n	n	1	6	26
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	3	3	11	14	24	21	18	n	n	n	n	1	15
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	1	1	4	3	9	7	11	n	n	n	n	1	2
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	1	1	2	3	5	4	1	n	n	n	n	3	4
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	1	1	2	3	5	4	1	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2	3	1	n	n	n	n	n	1	3
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	5	3	3	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	4	1	n	n	n	n
ERA 1	13	24	23	54	17	17	8	7	3	2	2	1	1	1	n	n	n	n	37	26	7	3	n	n
ERA 2	5	5	10	12	16	46	20	25	11	9	7	3	3	2	1	n	n	n	7	22	22	10	5	1
Ice/Sea Segment 16b	7	6	14	10	22	31	67	49	35	22	14	10	4	4	2	2	n	n	8	21	78	42	18	6
Harrison Bay	1	1	2	3	3	10	8	24	6	7	4	3	2	1	1	n	n	n	1	4	10	5	5	1
Harrison Bay/Colville Delta	2	2	4	3	5	8	13	24	14	18	10	7	7	3	3	1	1	n	3	6	14	17	8	5
ERA 3	3	1	6	3	8	7	23	27	40	54	23	17	13	3	3	n	n	n	1	7	39	51	21	4
Simpson Lagoon	n	n	1	1	2	2	5	7	11	19	12	15	11	4	4	1	1	n	n	2	7	15	14	3
Gwyder Bay	n	n	n	n	n	n	n	1	1	3	2	4	2	1	1	n	n	n	n	n	n	2	2	1
Prudhoe Bay	n	n	n	n	n	n	n	n	1	1	1	1	n	n	n	n	n	n	n	n	n	1	1	n
Cross Island ERA	n	n	1	1	1	1	2	3	5	11	9	54	16	7	9	1	1	n	n	1	3	7	23	10
Water over Boulder Patch 1	n	n	n	n	n	n	n	1	2	4	2	12	3	1	3	n	1	n	n	n	4	3	2	1
Water over Boulder Patch 2	n	n	n	n	n	n	1	1	2	3	2	11	3	1	3	n	1	n	n	n	n	3	3	2
Foggy Island Bay	n	n	n	n	n	n	n	n	n	1	2	1	6	1	n	1	n	n	n	n	n	2	1	1
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	1	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	1	1	2	5	5	35	10	4	12	1	2	n	n	n	4	13	8	1
Simpson Cove	n	n	1	n	1	1	4	4	8	12	15	59	50	23	27	3	3	n	n	3	9	57	46	2
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	1	n	4	3	6	15	5	43	3	n	n	n	n	1	11
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	3	3	11	17	20	43	35	n	n	n	n	2	12
ERA 6	n	n	n	n	n	n	n	n	n	1	2	3	7	7	21	26	56	38	14	n	n	1	6	25
ERA 7	n	n	n	n	n	n	n	n	n	n	n	1	1	3	4	8	9	31	n	n	n	n	n	3
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2	4	4	14	n	n	n	n	1	6
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	2	2	3	1	n	n	n	n	n	1	3

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-5. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Land	57	73	56	74	53	69	49	64	43	57	37	54	38	38	50	48	65	84
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	30	44	18	18	12	9	5	4	3	2	1	1	n	n	n	n	33	14
Thetis and Jones Islands	1	1	2	1	3	3	7	8	15	25	17	16	12	4	5	1	2	n
Cottle & Return Islands, West Dock	n	n	1	n	1	1	2	3	7	13	10	15	9	3	4	1	1	n
Midway Islands	n	n	n	n	n	1	1	2	5	2	7	3	1	2	n	1	n	n
Cross and No Name Islands	n	n	n	n	n	1	1	2	4	2	10	4	2	3	n	1	n	n
Endicott Causeway	n	n	n	n	n	n	1	2	2	4	1	n	n	n	n	n	n	n
McClure Islands	n	n	n	n	n	n	1	1	2	1	8	3	1	3	n	1	n	n
Stockton Islands	n	n	n	n	n	n	1	1	1	6	2	1	3	n	1	n	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	1	1	4	2	1	3	n	1	n	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	1	n	2	2	3	n	1	n	n
Barrier Islands	n	n	n	n	n	n	n	n	1	n	4	2	1	2	1	5	1	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	3	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	1	1	3	6	6	16	5	n	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	n	1	2	7	8	11	13	13	n	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	1	1	3	4	5	4	13	n	n
Icy Reef	n	n	n	n	n	n	n	n	n	2	1	3	4	6	7	17	n	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 1	23	33	18	16	12	9	5	4	3	2	2	1	n	n	n	n	28	13
Ice/Sea Segment 2	9	12	20	30	23	26	15	9	11	7	7	4	4	1	1	n	15	29
Ice/Sea Segment 3	6	5	10	8	14	22	25	35	19	21	14	9	8	4	2	2	n	7
Ice/Sea Segment 4	5	2	5	2	5	5	12	12	25	37	28	25	21	8	7	2	1	3
Ice/Sea Segment 5	n	n	1	1	1	2	3	3	7	10	13	21	10	15	2	3	n	1
Ice/Sea Segment 6	n	n	n	n	n	n	n	1	1	2	2	10	8	9	36	5	23	2
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	1	1	5	5	11	13	18	26	11	n
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	1	n	4	4	12	12	18	16	19	n
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	1	1	3	4	9	9	15	14	18	n
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	3	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	1	1
Barrow Subistence Area 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 2	49	75	37	44	26	21	13	9	8	5	4	2	1	n	n	n	57	30
Nuiqsut Subistence Area	n	n	1	1	1	1	2	3	5	10	9	41	14	7	9	1	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	1	n	3	3	11	16	17	34	26	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-5 (Continued). Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 16a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	13	24	23	54	18	18	8	7	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
ERA 2	5	5	10	12	16	46	20	25	11	9	7	4	4	2	1	1	1	1	1	1	1	1	1	1
Ice/Sea Segment 16b	8	6	15	10	23	31	67	49	36	24	15	11	4	4	2	2	2	2	2	2	2	2	2	2
Harrison Bay	1	1	2	3	3	10	9	24	6	7	4	3	2	1	1	1	1	1	1	1	1	1	1	1
Harrison Bay/Colville Delta	2	2	4	4	6	9	14	24	14	18	11	8	8	4	3	2	2	2	2	2	2	2	2	2
ERA 3	3	1	6	3	8	8	23	27	40	54	25	17	13	4	4	5	1	2	2	2	2	2	2	2
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table B-7. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Hypothetical Spill Location																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12
25	Barrow, Elson Lagoon	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
26	Dease Inlet	n	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
27	Kurgorak Bay	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
28	Cape Simpson	n	4	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	Ikpiqpuq River, Smith Bay	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	Drew Point, McLeod Point	n	n	n	6	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	Lonely AFS Airport, Pitt Point, Pogik Bay	n	n	1	3	1	6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
32	Cape Halkett	n	n	n	n	n	5	n	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	Atigaru Point, Kogru River	n	n	n	n	n	1	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	Fish Creek	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	Colville River	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	Oliktok Point	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	Bullen Point, Point Gordon, Reliance Point	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-11. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Name	Hypothetical Spill Location																	
		LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18
20	Asiniak Point, Kugrua Bay, Kugrua River	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
22	Skull Cliff	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
23	Nulavik	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
24	Walakpa Bay, Walakpa River	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
25	Barrow, Elson Lagoon	17	15	6	6	4	3	2	2	1	1	n	n	n	n	n	n	n	n
26	Dease Inlet	11	18	7	6	5	4	2	1	2	1	1	n	n	n	n	n	n	n
27	Kurgorak Bay	7	11	5	5	3	2	1	1	1	n	n	n	n	n	n	n	n	n
28	Cape Simpson	6	11	6	12	4	5	3	1	1	1	n	n	n	n	n	n	n	n
29	Ikpijuk River, Smith Bay	2	4	3	7	2	2	2	1	1	n	n	n	n	n	n	n	n	n
30	Drew Point, McLeod Point	2	4	7	16	8	5	3	3	2	2	1	1	n	n	n	n	n	n
31	Lonely AFS Airport, Pitt Point, Pogik Bay	3	3	9	10	11	18	7	5	4	4	3	2	2	n	n	n	n	n
32	Cape Halkett	1	1	3	3	6	14	8	15	5	6	3	3	1	1	n	n	n	n
33	Atigaru Point, Kogru River	1	1	1	2	2	5	5	10	3	4	2	1	1	n	n	n	n	n
34	Fish Creek	1	1	1	2	2	3	5	9	5	4	3	1	2	1	1	n	n	n
35	Colville River	1	1	2	1	2	2	4	6	4	6	3	2	2	1	1	n	n	n
36	Oliktok Point	n	n	1	1	1	1	3	5	5	7	4	5	3	1	1	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	1	2	3	5	6	7	5	2	2	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	1	3	2	4	2	1	1	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	1	2	3	2	5	1	1	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	1	2	1	3	1	1	n	n	n	n
41	Bullen Point, Point Gordon, Reliance Point	n	n	n	n	n	n	n	n	n	1	3	1	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	1	n	4	2	2	3	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	1	n	2	1	1	3	1	5	1
44	Collinson Point, Konganevik Point	n	n	n	n	n	n	n	n	n	n	n	1	n	n	2	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	1	n	2	3	3	9	2
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	1	n	5	7	9	13	9
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	1	n	4	5	6	5	9
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	1	n	4	5	6	5	9
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	1	n	3	4	4	3	8
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	1	n	2	2	4	4	12
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	1	n	3	3	5	5	12
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	1	n	2	2	2	2	9
53	Komakuk Beach, Fish Creek	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	2	3	8
54	Nunaluk Spit	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	2	3	8
55	Herschel Island	n	n	n	n	n	n	n	n	n	n	n	1	n	3	2	5	n	n
56	Puarmagin Bay	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	2	n	n
57	Roland & Phillips Bay, Kay Point	n	n	n	n	n	n	n	n	n	n	n	1	n	1	1	1	n	n
58	Sabine Point	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
60	Trent and Shoalwater Bays	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
63	Outer Shallow Bay, Olivier Islands	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
64	Middle Channel, Gary Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
65	Kendall Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
66	North Point, Pullen Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-12. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Land Segment	Name	Hypothetical Spill Location																	
		L	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
20	Asiniak Point, Kugrua Bay, Kugrua River	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
22	Skull Cliff	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
23	Nulavik	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
24	Walakpa Bay, Walakpa River	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
25	Barrow, Elson Lagoon	17	16	7	6	4	3	2	2	2	2	3	1	1	n	n	n	n	
26	Dease Inlet	11	18	8	7	5	4	2	2	2	1	n	n	n	n	n	n	n	
27	Kurgorak Bay	7	11	5	5	3	2	1	1	1	n	n	n	n	n	n	n	n	
28	Cape Simpson	6	11	6	12	5	5	3	2	1	1	n	n	n	n	n	n	n	
29	Ikpiqruk River, Smith Bay	2	4	3	7	3	3	2	1	1	1	n	n	n	n	n	n	n	
30	Drew Point, McLeod Point	3	4	8	16	8	6	4	4	3	2	1	n	n	n	n	n	n	
31	Lonely AFS Airport, Pitt Point, Pogik Bay	4	3	9	10	12	18	7	5	6	4	5	3	3	2	1	n	n	
32	Cape Halkett	2	2	4	3	7	15	9	16	6	7	5	4	4	2	1	n	n	
33	Atigaru Point, Kogru River	1	1	2	2	2	5	5	10	3	4	2	1	1	1	n	n	n	
34	Fish Creek	1	1	1	2	2	4	5	9	6	5	4	2	2	1	1	n	n	
35	Colville River	2	2	3	2	3	3	5	7	5	7	4	3	3	1	1	n	n	
36	Olltok Point	n	n	1	1	2	1	3	5	5	8	5	4	2	1	1	n	n	
37	Milne Point, Simpson Lagoon	n	n	n	n	n	1	n	1	2	4	8	7	8	7	3	3	1	
38	Kuparuk River	n	n	n	n	n	n	n	1	3	3	3	5	2	1	1	n	n	
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	1	2	1	3	1	1	n	n	n	n	
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	
41	Bullen Point, Point Gordon, Reliance Point	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	1	1	4	2	2	3	n	n	
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	1	n	2	2	2	3	1	5	
44	Collinson Point, Konganevik Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
47	Kaktovik	n	n	n	n	n	n	n	n	n	1	1	2	3	7	8	10	13	
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
53	Komakuk Beach, Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
54	Nunaluk Spit	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
55	Herschel Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
56	Ptarmagin Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
57	Roland & Phillips Bay, Kay Point	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
58	Sabine Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
59	Shingle Point	1	n	2	1	3	1	3	2	3	4	3	2	1	1	n	n	n	
60	Trent and Shoalwater Bays	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
62	Shallow Bay, West Channel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
63	Outer Shallow Bay, Olivier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
64	Middle Channel, Gary Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
65	Kendall Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
66	North Point, Pullen Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-13. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>																															
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-14. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>																															
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-15. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>																															
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
Boundary Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13
24	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
25	1	n	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	1	n	n	n	n	
26	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
27	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	1	n	
28	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-16. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																	
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13			
22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
23	2	1	1	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	1	n	1	n	1	n	n	n	1	1	1	n	n	n	n	
24	1	n	1	1	1	1	n	1	n	n	n	n	n	n	n	n	n	n	1	1	1	n	1	n	n	n	1	n	n	1	n	n	n	
25	3	2	2	1	2	1	1	1	1	n	1	n	n	n	n	n	n	n	3	1	2	1	n	1	n	1	2	2	1	n	n	n	n	
26	n	n	n	n	2	1	3	1	2	2	3	2	2	1	1	n	n	n	n	n	2	2	3	1	n	n	1	1	2	1	1	1	1	
27	1	n	1	1	1	n	2	2	3	3	3	2	2	1	1	n	n	n	n	1	1	4	3	2	n	1	n	1	n	4	3	2	n	
28	n	n	1	n	1	1	2	1	1	n	2	1	1	1	1	n	n	n	n	2	n	1	n	n	1	n	n	1	n	n	1	n	n	
29	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-17. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

<u>Hypothetical Spill Location</u>																																	
Boundary Segment	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13		
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
18	3	2	3	2	2	1	2	1	2	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	
19	2	1	2	1	2	n	1	n	1	n	n	n	n	n	n	n	n	n	1	3	1	n	n	n	n	1	1	n	n	n	n	n	
20	1	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	
21	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	1	n	n	n	n	n	
22	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
23	2	1	2	1	2	1	2	2	2	1	1	1	1	1	1	1	1	1	2	1	2	2	1	2	1	n	2	2	2	1	1		
24	2	1	1	1	1	1	1	1	1	n	n	1	1	n	n	n	n	n	1	1	1	1	n	1	n	n	n	n	n	n	n	n	
25	4	3	2	1	2	1	1	1	1	n	1	n	1	n	n	n	n	n	4	2	2	2	1	n	1	n	2	3	1	n	n		
26	1	1	1	1	2	1	3	2	3	3	3	2	3	3	2	2	2	2	1	2	1	2	3	4	3	1	1	2	2	3	2	2	
27	2	1	2	2	2	2	3	3	5	4	5	3	4	4	3	2	1	n	1	2	2	2	6	5	5	2	3	2	5	4	3	1	
28	2	2	4	2	5	3	5	2	3	1	4	1	3	3	1	1	n	n	2	4	4	1	2	1	n	2	3	1	1	1	n		
29	1	n	2	1	2	2	3	2	2	1	1	1	2	1	n	1	n	n	1	1	3	1	1	1	1	1	3	1	1	1	n		
30	n	n	n	n	1	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
31	n	n	n	n	n	n	1	n	1	n	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
36	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
37	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	
38	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table B-18. Summer conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																																		
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24	LA 25	LA 26	LA 27	LA 28	LA 29	LA 30	LA 31	LA 35	LA 36	LA 37	LA 38																
4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n														
17	1	1	1	1	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n													
18	3	2	3	2	2	1	2	1	2	1	1	1	1	n	n	n	n	n	3	1	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n													
19	2	1	2	1	2	n	1	n	1	n	n	n	n	n	n	n	n	1	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n												
20	1	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n											
21	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n										
22	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n									
23	2	1	2	1	2	1	2	2	2	1	1	1	1	n	n	n	1	1	n	2	1	2	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n								
24	2	1	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n						
25	4	3	2	1	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	4	2	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
26	1	1	1	1	2	1	3	2	3	3	4	3	4	3	3	2	2	1	2	1	2	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
27	2	1	2	2	2	2	3	4	6	5	5	4	4	4	3	2	1	n	1	n	1	3	2	7	5	5	2	3	2	6	4	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
28	2	2	4	3	6	4	6	3	4	3	5	4	4	2	1	1	n	n	3	5	6	2	4	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
29	1	n	2	1	2	2	3	2	2	1	2	1	1	1	1	n	n	n	1	1	3	1	1	1	1	1	1	1	2	4	2	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
30	1	1	1	n	1	n	1	1	1	1	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
31	n	n	n	n	n	n	1	n	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
36	n	n	n	n	n	n	n	n	n	n	n	1	1	2	3	2	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
37	n	n	1	n	1	1	1	n	1	n	1	1	1	1	2	1	1	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
38	n	n	n	n	n	n	n	n	n	1	1	1	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Appendix C

Winter Conditional Probabilities

Table C-1. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																															
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA				
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	1	2	3	4	5	6	7	8	9	10	11	12	13	
Land	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Point Barrow, Plover Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Thetis and Jones Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Cottle & Return Islands, West Dock	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Midway Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Cross and No Name Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
Endicott Causeway	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
McClure Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Stockton Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 6	18	7	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 7	9	15	2	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 8	1	n	16	2	11	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 9	1	1	14	5	11	4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Beaufort Spring Lead 10	n	n	n	n	7	2	16	1	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 1	2	7	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 2	n	1	1	6	1	5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 3	n	n	n	n	n	3	2	6	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 4	n	n	n	n	n	n	n	1	2	6	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 5	n	n	n	n	n	n	n	n	n	n	1	5	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 6	n	n	n	n	n	n	n	n	n	n	n	n	n	1	7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Barrow Subistence Area 2	1	8	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Nuiqsut Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-1 (Continued). Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Hanna's Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 15	n	2	13	43	22	38	3	1	n	n	n	n	n	n	n	n	n	n	n	n	3	69	3	n
Ice/Sea Segment 16a	n	n	n	n	2	14	50	21	20	3	n	n	n	n	n	n	n	n	n	n	6	59	5	n
Ice/Sea Segment 17	n	n	n	n	n	n	2	1	32	32	41	10	5	n	n	n	n	n	n	n	9	***	41	n
Ice/Sea Segment 18a	n	n	n	n	n	n	n	n	n	1	2	40	37	15	14	n	n	n	n	n	n	n	44	43
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	n	n	n	n	n	n	2	51	14	46	1	n	n	18	59	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	26	4	2	n	n	n	1	8	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	n	3	1	13	n	n	1	11	1	3	n	n	n	n	n	n	n	n	n	n	8	3	n	n
ERA 2	n	n	n	n	1	4	16	7	7	1	n	n	n	n	n	n	n	n	n	n	2	20	2	n
Ice/Sea Segment 16b	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Harrison Bay/Colville Delta	n	n	n	n	n	n	n	2	4	9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 3	n	n	n	n	n	n	1	2	4	9	n	n	n	n	n	n	n	n	n	n	n	7	7	n
Simpson Lagoon	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	n	n	n	n	n	14	1	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	n	n	3	n	n	n	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	7	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	n	n	n	n	n	n	14	12	5	5	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	9	2	1	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-4 (Continued). Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 60 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Environmental Resource Area	Hypothetical Spill Location																							
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1
Hanna's Shoal Polynya	9	5	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1	8	3	1	1	1	1	1
Ice/Sea Segment 12	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1
Ice/Sea Segment 13	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1
Ice/Sea Segment 14	21	14	11	8	6	4	2	1	1	1	1	1	1	1	1	1	16	8	2	1	1	1	1	1
Ice/Sea Segment 15	7	11	25	55	36	53	17	14	11	8	5	3	3	1	1	1	13	73	18	10	8	3	1	25
Ice/Sea Segment 16a	3	3	7	7	15	28	64	45	44	30	22	14	14	7	3	2	3	16	70	35	19	8	3	4
Ice/Sea Segment 17	1	1	3	2	5	5	17	13	48	52	58	36	31	14	15	5	4	1	4	23	**	60	16	3
Ice/Sea Segment 18a	n	n	n	n	1	1	2	1	3	5	8	53	43	24	38	5	6	1	1	2	4	48	51	4
Ice/Sea Segment 19	n	n	n	n	n	n	n	n	1	1	4	3	8	60	25	59	8	n	n	1	3	25	65	n
Ice/Sea Segment 20a	n	n	n	n	n	n	n	n	n	1	2	4	12	15	47	28	18	n	n	n	2	17	37	n
Ice/Sea Segment 21	n	n	n	n	n	n	n	n	n	n	1	1	4	5	12	9	12	n	n	n	n	5	11	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	n	1	1	4	3	5	n	n	n	n	n	2	4	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	2	1	1	n	n	n	1	2	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	1	n	n	n	n	1	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 1	2	6	5	18	5	7	4	3	3	2	2	1	2	1	1	n	n	11	9	4	3	2	n	20
ERA 2	n	1	2	3	4	15	7	12	5	6	3	3	2	1	2	1	1	n	1	5	7	6	3	1
Ice/Sea Segment 16b	n	n	n	n	n	n	2	1	5	1	1	1	1	n	n	n	n	n	n	n	1	2	1	n
Harrison Bay	n	n	n	n	1	1	2	6	2	3	1	1	1	n	n	n	n	n	n	1	2	2	1	n
Harrison Bay/Colville Delta	n	n	1	2	3	6	8	10	18	6	7	5	3	3	1	1	n	n	2	12	16	8	4	1
ERA 3	n	n	n	n	n	n	1	2	1	4	1	2	1	n	n	n	n	n	n	1	2	2	8	4
Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Gwyder Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	n	1	n	n	2	1	16	3	1	3	n	n	n	n	n	n	1	4	2
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	1	n	5	n	n	1	n	n	n	n	n	n	n	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	1	n	4	n	n	1	n	n	n	n	n	n	n	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	n	n	9	1	1	4	n	1	n	n	n	n	1	2	n
ERA 4	n	n	n	n	n	n	n	n	n	1	2	19	14	7	12	1	2	n	n	1	15	1	n	1
Ice/Sea Segment 18b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-5. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

	Hypothetical Spill Location																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Environmental Resource Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Land	28	41	28	41	28	39	29	43	27	34	24	35	25	27	31	33	40	57
Kasegaluk Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Barrow, Plover Islands	13	25	11	13	9	7	5	4	3	2	3	2	2	2	2	1	17	10
Thetis and Jones Islands	n	n	1	1	2	3	5	8	8	15	7	8	5	2	3	n	n	2
Cottle & Return Islands, West Dock	n	n	n	n	1	1	2	2	3	6	3	8	2	1	2	n	n	1
Midway Islands	n	n	n	n	n	n	n	n	1	1	1	4	1	n	n	n	n	n
Cross and No Name Islands	n	n	n	n	n	n	n	n	1	1	1	5	1	1	2	1	1	n
Endicott Causeway	n	n	n	n	n	n	n	n	n	n	n	2	n	n	n	n	n	n
McClure Islands	n	n	n	n	n	n	n	n	n	n	1	3	1	1	2	n	n	n
Stockton Islands	n	n	n	n	n	n	n	n	n	n	n	1	n	2	n	1	n	n
Tigvariak Island	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n
Maguire Islands	n	n	n	n	n	n	n	n	n	n	n	1	n	n	1	n	n	n
Flaxman Island	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n
Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	4	n
Anderson Point Barrier Islands	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n
Arey and Barter Islands, Bernard Spit	n	n	n	n	n	n	n	n	n	n	1	1	1	1	3	3	8	4
Jago and Tapkaurak Spits	n	n	n	n	n	n	n	n	1	1	1	1	1	2	2	3	5	9
Angun and Beaufort Lagoons	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	8	n
Icy Reef	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	2	1	11
Chukchi Spring Lead 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Chukchi Spring Lead 5	3	2	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	2
Beaufort Spring Lead 6	25	20	13	11	9	6	5	3	4	2	3	2	3	2	2	1	n	25
Beaufort Spring Lead 7	18	27	12	12	8	7	5	3	4	3	3	2	3	2	2	1	n	32
Beaufort Spring Lead 8	6	7	22	13	19	11	8	5	7	5	5	3	4	4	2	3	2	10
Beaufort Spring Lead 9	5	8	20	17	18	15	9	6	7	5	5	3	4	4	3	3	2	11
Beaufort Spring Lead 10	1	1	4	5	13	12	27	16	17	12	11	7	8	5	5	4	3	n
Ice/Sea Segment 1	4	8	2	3	1	1	1	n	n	n	n	n	n	n	n	n	n	5
Ice/Sea Segment 2	1	2	2	7	2	6	2	2	1	1	n	n	n	n	n	n	n	2
Ice/Sea Segment 3	n	n	1	1	1	4	3	7	2	3	1	1	1	n	n	n	n	1
Ice/Sea Segment 4	n	n	n	n	n	n	1	1	4	7	5	3	2	1	1	n	n	n
Ice/Sea Segment 5	n	n	n	n	n	n	n	n	n	1	1	6	4	1	2	n	n	n
Ice/Sea Segment 6	n	n	n	n	n	n	n	n	n	n	n	1	1	1	8	1	5	n
Ice/Sea Segment 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	3	4
Ice/Sea Segment 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	3
Ice/Sea Segment 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	2
Point Hope Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Point Lay Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Wainwright Subistence Area	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	1	n	2
Barrow Subistence Area 1	4	3	2	2	1	1	1	n	n	n	n	n	n	n	n	n	4	2
Barrow Subistence Area 2	5	10	4	5	4	3	3	2	3	1	2	1	2	2	2	2	6	4
Nuiqsut Subistence Area	n	n	n	n	n	n	n	n	n	n	1	1	5	2	1	n	n	n
Kaktovik Subistence Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	3	4

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-5 (Continued). Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain environmental resource area within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Hypothetical Spill Location

Environmental Resource Area	Hypothetical Spill Location																								
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24	
Whale Concentration Area	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Herald Shoal Polynya	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Ice/Sea Segment 11	7	4	4	2	3	1	2	1	2	1	1	1	1	1	1	1	1	6	2	2	2	2	1	n	3
Hanna's Shoal Polynya	16	10	10	7	6	5	3	2	2	1	1	1	2	1	1	1	n	14	7	3	2	2	1	n	6
Ice/Sea Segment 12	6	4	3	2	2	1	1	1	2	1	1	1	1	1	1	1	1	5	2	1	2	1	n	4	n
Ice/Sea Segment 13	6	4	4	3	3	1	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	4	n
Ice/Sea Segment 14	25	17	15	10	10	6	5	3	4	2	3	1	2	2	1	3	1	19	11	5	3	3	10	4	2
Ice/Sea Segment 15	9	13	27	59	38	57	21	18	16	13	12	8	9	7	7	6	5	14	74	22	14	12	6	4	31
Ice/Sea Segment 16a	4	4	9	11	17	31	65	51	49	38	29	21	20	11	12	6	5	1	4	18	73	42	27	12	5
Ice/Sea Segment 17	2	2	4	4	7	8	20	19	50	58	60	41	34	17	18	7	5	1	2	6	27	**	63	18	4
Ice/Sea Segment 18a	n	n	n	1	1	1	3	2	5	7	10	57	44	25	40	6	6	1	n	1	3	7	50	52	4
Ice/Sea Segment 19	n	n	1	n	n	n	1	n	1	1	2	6	3	8	62	26	64	9	n	1	1	2	3	25	66
Ice/Sea Segment 20a	2	1	2	n	2	1	n	1	1	1	2	5	6	15	19	50	34	23	1	1	1	1	3	20	42
Ice/Sea Segment 21	2	1	2	n	1	n	1	n	1	1	2	3	8	9	18	14	17	2	1	n	1	1	9	17	n
Ice/Sea Segment 22	n	n	n	n	n	n	n	n	n	n	1	2	3	6	8	11	8	8	n	n	n	2	8	9	n
Ice/Sea Segment 23	n	n	n	n	n	n	n	n	n	n	1	3	3	8	7	9	7	4	n	n	1	1	2	7	n
Ice/Sea Segment 24a	n	n	n	n	n	n	n	n	n	1	1	2	2	4	4	5	5	4	n	n	1	1	4	5	n
Ledyard Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Peard Bay	2	1	1	1	1	n	1	n	n	n	1	n	n	1	1	2	1	n	2	1	n	1	1	n	n
ERA 1	3	10	8	25	6	10	6	5	4	3	3	2	3	3	2	2	1	n	13	11	7	4	3	2	28
ERA 2	1	1	4	6	6	22	13	23	13	15	9	8	6	5	5	4	3	1	1	8	14	14	9	5	3
Ice/Sea Segment 16b	1	2	3	6	7	14	26	25	22	22	14	12	10	5	7	4	3	1	1	8	31	21	14	6	4
Harrison Bay	n	n	n	n	1	3	2	10	3	4	2	3	2	1	2	1	1	n	n	1	3	3	3	2	1
Harrison Bay/Colville Delta	n	n	1	1	2	3	5	14	6	11	6	4	4	2	1	n	n	3	6	8	5	2	n	1	6
ERA 3	1	1	1	2	3	6	11	16	18	30	14	15	10	6	8	2	3	n	1	4	18	26	16	7	2
Simpson Lagoon	n	n	1	1	2	3	5	7	6	12	6	8	4	2	3	n	n	2	5	9	8	3	n	1	6
Gwyder Bay	n	n	n	n	n	n	1	n	1	n	2	n	n	n	n	n	n	n	n	2	1	1	n	n	n
Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Cross Island ERA	n	n	n	n	n	1	1	1	2	4	3	23	5	3	6	1	1	n	n	2	4	7	4	1	n
Water over Boulder Patch 1	n	n	n	n	n	n	n	n	n	1	1	7	1	1	2	n	n	n	n	n	n	2	1	n	n
Water over Boulder Patch 2	n	n	n	n	n	n	n	n	n	1	1	7	1	1	2	n	n	n	n	n	n	1	1	n	n
Foggy Island Bay	n	n	n	n	n	n	n	n	n	1	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n
Mikkelsen Bay	n	n	n	n	n	n	n	n	n	1	1	3	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 4	n	n	n	n	n	1	1	n	1	1	13	2	2	6	1	1	n	n	1	2	3	3	n	n	1
Ice/Sea Segment 18b	n	n	n	n	n	1	1	3	4	4	25	16	8	15	2	3	n	n	n	2	4	19	17	1	1
Simpson Cove	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
ERA 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Kaktovik ERA	n	n	n	n	n	n	n	n	n	1	1	3	2	3	6	9	23	3	n	n	n	1	2	7	n
Ice/Sea Segment 20b	n	n	n	n	n	n	n	n	n	1	1	3	2	3	6	9	23	24	n	n	n	1	2	4	26
ERA 6	n	n	n	n	n	n	n	n	n	1	1	3	2	5	7	18	17	14	n	n	n	1	2	6	19
ERA 7	n	n	n	n	n	n	n	n	n	n	1	1	2	3	5	5	22	n	n	n	n	1	3	4	n
ERA 8	n	n	n	n	n	n	n	n	n	n	1	1	2	3	4	3	7	n	n	n	n	1	3	4	n
Ice/Sea Segment 24b	n	n	n	n	n	n	n	n	n	n	1	1	4	5	5	5	5	5	n	n	n	1	4	5	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-7. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Hypothetical Spill Location																																			
		LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13					
26	Dease Inlet	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
28	Cape Simpson	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
29	Ikpikpuk River, Smith Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	Drew Point, McLeod Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	Lonely, Pitt Point, Fogik Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
32	Cape Halkett	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	Aigaru Point, Kogru River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	Oliktok Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktaik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-8. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Hypothetical Spill Location																																			
		LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13					
25	Barrow, Elson Lagoon	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
26	Dease Inlet	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
27	Kurgorak Bay	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
28	Cape Simpson	n	1	n	2	n	1	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	
29	Ikpiakupuk River, Smith Bay	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	4	n	n	n	n	n	n	n	n	
30	Drew Point, McLeod Point	n	n	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
31	Lonely, Pitt Point, Fogik Bay	n	n	n	1	1	2	n	1	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
32	Cape Halkett	n	n	n	n	n	1	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	Atigaru Point, Kogru River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	Colville River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	Oliktok Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-9. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain land segment within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Land Segment	Name	Hypothetical Spill Location																																			
		LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13					
24	Walakpa Bay, Walakpa River	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
25	Barrow, Elson Lagoon	3	4	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n			
26	Dease Inlet	1	3	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n			
27	Kurgorak Bay	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
28	Cape Simpson	n	2	1	3	1	1	1	1	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
29	Ikpikpak River, Smith Bay	n	n	n	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
30	Drew Point, McLeod Point	n	n	n	2	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
31	Lonely, Pitt Point, Pogik Bay	n	n	1	1	1	3	1	1	1	n	n	n	n	n	n	n	n	n	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
32	Cape Halkett	n	n	n	n	n	2	1	3	1	n	n	n	n	n	n	n	n	n	n	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
33	Atigaru Point, Kogru River	n	n	n	n	n	n	n	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	Fish Creek	n	n	n	n	n	n	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	Colville River	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	Oliktok Point	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	Milne Point, Simpson Lagoon	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	Kuparuk River	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
39	Point Brower, Prudhoe Bay	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
40	Foggy Island Bay, Kadleroshilik River	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
41	Bullen Point, Point Gordon, Reliance Pt.	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
42	Point Hopson, & Sweeney, Staines River	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
43	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
44	Brownlow Point, Canning River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
45	Anderson Point, Sadlerochit River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
46	Arey Island, Barter Island	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
47	Kaktovik	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
48	Griffin Point, Oruktaalik Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
49	Angun Point, Beaufort Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
50	Icy Reef, Kongakut River, Siku Lagoon	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
51	Demarcation Bay, Demarcation Point	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
52	Clarence Lagoon, Backhouse River	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
53	Komakuk Beach, Fish Creek	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent.

Table C-13. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 3 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

		<u>Hypothetical Spill Location</u>																	
		LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Boundary	Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table C-14. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 10 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

		<u>Hypothetical Spill Location</u>																	
		LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Boundary	Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
		1	2	3	4	5	6	7	8	9	10 <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td>	11	12	13	14	15	16	17	18
		1	2	3	4	5	6	7	8	9	10 <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td>	11	12	13	14	15	16	17	18

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table C-15. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 30 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

		<u>Hypothetical Spill Location</u>																	
		LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA
Boundary	Segment	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	21	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	22	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	23	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	24	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	25	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	26	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	27	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table C-17. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 180 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																									
	LA 1	LA 2	LA 3	LA 4	LA 5	LA 6	LA 7	LA 8	LA 9	LA 10	LA 11	LA 12	LA 13	LA 14	LA 15	LA 16	LA 17	LA 18	LA 19	LA 20	LA 21	LA 22	LA 23	LA 24	LA 25	LA 26	LA 27	LA 28	LA 29	LA 30	LA 31	LA 32	LA 33	LA 34	LA 35	LA 36	LA 37	LA 38				
18	4	3	3	2	2	2	1	n	n	n	n	n	n	n	n	n	n	n	3	2	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
19	6	4	4	2	2	2	1	1	1	1	n	n	n	n	n	n	n	n	n	5	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
20	6	4	4	3	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	5	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
21	2	2	2	1	1	1	1	n	1	n	n	n	n	n	n	n	n	n	n	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
22	2	1	2	1	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
23	4	2	3	2	3	2	2	1	1	1	1	1	1	1	n	n	n	n	n	3	2	2	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
24	4	3	3	2	3	2	2	2	2	1	1	1	1	1	n	n	n	n	n	4	2	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
25	3	2	4	3	5	4	5	3	4	3	4	2	3	3	2	1	1	n	n	3	4	4	3	4	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
26	3	2	4	3	5	4	6	4	6	4	6	4	5	4	4	3	1	n	n	3	5	6	5	4	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
27	2	2	4	4	7	5	8	6	8	6	8	5	8	7	6	4	2	1	n	n	3	5	8	7	6	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
28	3	2	3	3	4	4	4	3	4	3	5	3	4	4	3	4	3	2	3	4	4	4	5	4	3	4	2	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n
29	2	1	1	1	1	1	2	1	2	2	3	3	3	3	4	2	1	2	1	2	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
30	n	n	n	n	n	n	1	n	1	n	1	1	1	1	n	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
31	n	n	n	n	1	1	1	1	1	1	2	1	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
34	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.

Table C-18. Winter conditional probabilities (expressed as percent chance) that an oil spill starting at a particular location will contact a certain boundary segment within 360 days, Beaufort Sea Planning Area, Sales 186, 195, and 202.

Boundary Segment	Hypothetical Spill Location																																																	
	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA	LA									
17	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n									
18	4	3	3	2	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n								
19	6	4	4	3	3	2	1	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n							
20	6	4	4	3	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n						
21	3	2	2	1	1	1	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n						
22	3	2	3	2	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
23	4	2	3	2	3	2	2	1	1	1	2	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n					
24	4	3	3	3	2	3	2	2	2	2	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
25	4	3	5	3	5	4	5	3	4	3	4	2	4	3	2	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
26	3	2	5	3	5	5	7	4	6	4	6	4	6	4	5	4	4	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n				
27	2	3	5	5	8	7	9	8	9	8	10	7	9	8	7	4	3	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n			
28	3	3	4	3	5	5	5	3	5	4	5	4	5	4	4	4	4	2	3	4	5	5	3	4	5	4	5	4	5	3	4	5	5	5	5	5	3	5	2	3	5	2	3	2	4	2	3			
29	2	1	1	1	2	1	2	2	2	2	3	3	3	4	3	4	3	1	2	1	2	3	4	4	3	1	2	1	2	3	4	4	3	1	1	1	1	1	1	1	1	1	3	2	2	2				
30	n	n	n	n	n	n	1	n	2	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n		
31	n	n	n	n	n	1	1	1	1	1	1	2	1	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
33	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
34	n	n	n	n	n	n	n	n	n	n	n	n	n	n	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
35	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	1	1	1	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
36	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	2	2	2	2	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
37	n	n	n	n	n	n	n	n	n	n	n	n	n	1	1	2	3	2	3	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
38	n	n	n	n	n	n	1	n	n	n	n	n	n	1	1	2	2	3	2	1	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Notes: ** = Greater than 99.5 percent; n = less than 0.5 percent. Rows with all values less than 0.5 percent are not shown.



The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.

