ANNEX #2

MEMORANDUM of AGREEMENT NOS-MOA-2011-080

among the

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

and

ALASKA OCEAN OBSERVING SYSTEM

and

CONOCOPHILLIPS COMPANY

and

SHELL OFFSHORE INC. AND SHELL GULF OF MEXICO INC.

and

STATOIL USA E&P Inc.

FOR THE PURPOSE OF SHARING, ARCHIVING AND DISTRIBUTING ENVIRONMENTAL SCIENCE DATA IN THE U.S. ARCTIC

NOS Agreement Code: MOA-2011-080 (Annex #2)/8528











I. PARTIES AND PURPOSE

- A. This Annex #2 is entered into pursuant to Section IV of the Memorandum of Agreement dated 23 August, 2011, by and among the National Oceanic and Atmospheric Administration, U.S. Department of Commerce, and Shell Exploration and Production Company, ConocoPhillips Company, and Statoil USA E&P Inc. for the Purpose of Supporting Collaborative Arctic Coastal And Ocean Science in U.S. Arctic Waters (NOS Agreement Code: MOA-2011-080/8400) (hereinafter referred to as "the Agreement") and is subject to the Agreement.
- B. The parties to this Annex #2 are the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, the Alaska Ocean Observing System (AOOS), which is part of the NOAA-coordinated U.S. Integrated Ocean Observing System, and Shell Gulf of Mexico Inc. (SGOMI) and Shell Offshore Inc. (SOI) (SGOMI and SOI being hereinafter collectively referred to as "Shell"), ConocoPhillips Company, and Statoil USA E&P Inc. (hereinafter referred to as "Industry Parties"), individually and collectively referred to herein as "Party" or "Parties."
- C. The purpose of this Annex #2 is for Industry Parties to provide Arctic environmental science data to AOOS so that AOOS can make these data available for analysis and use by NOAA researchers and others in the scientific research community, operational NOAA programs and the general public.

II. AUTHORITIES

- A. The legal authorities for NOAA to participate in this Annex #2 are:
 - 1. The Coast and Geodetic Survey Act, 33 U.S.C. § 883a et seq., which authorizes the Secretary of Commerce (NOAA) to, inter alia, collect and disseminate a variety of data for scientific and engineering purposes. The Act also authorizes NOAA to enter into agreements with, and to receive and expend funds made available by, any State or subdivision thereof, any Federal agency, or a public or private organization, or individual, for surveys or investigations authorized by the Act, or for performing related surveying and mapping activities, including special-purpose maps, and for the preparation and publication of the results thereof, and to establish the terms of any agreement entered into under the Act, including the amount of funds to be received, and to contribute that portion of the costs incurred by NOAA, including ship time and personnel expenses, which NOAA determines represents the amount of benefits derived by the Administration from the agreement;

- 2. The Marine Mammal Protection Act (MMPA), 16 U.S.C. § 1361 et seq., which provides for the protection of marine mammals, with the primary objective of maintaining the health and stability of the marine ecosystem and which authorizes the Secretary of Commerce to enter into such contracts, leases, cooperative agreements, or other transactions as may be necessary to carry out the purposes of subchapter II or subchapter V of the MMPA and on such terms as deemed appropriate with any Federal or State agency, public or private institution, or other person; and
- The Integrated Coastal and Ocean Observation System Act of 2009, 33 U.S.C. §§ 3601 et seq., which establishes NOAA as the Federal lead agency for the implementation and administration of the Integrated Ocean Observing System.

III. STATEMENT OF WORK

A. Under this Annex #2, the Industry Parties, in their individual sole discretion, will provide to AOOS copies of environmental science data acquired by the Industry Parties described in Exhibit 2-A attached hereto ("Information"). Exhibit 2-A will include Information description, source, format, time period, location, ownership; identify the Party submitting the Information and the current location or procedure for submitting Information to AOOS.

Exhibit 2-A shall be reviewed on an annual basis by the Parties to update submission procedures, information offerings, and instrumentation setup, as appropriate. Notwithstanding the foregoing, each Industry Party may in its sole discretion submit additional exclusively owned information, pursuant to this Annex #2, upon written notice to all Parties, including a detailed description of the additional information to be submitted.

It is the intention of the Industry Parties to transmit the Information to AOOS; however, failure to provide all Information does not give rise to any claim or liability. Nothing in the Agreement conveys or transfers any ownership rights in or to the Information.

Information provided may include data resulting from discrete observations or live streams that have been verified through defined quality assurance/quality control and calibration procedures, derivative data produced by analysis of discrete observations or the output from models, or reports that have been produced through incorporation and processing of these data. Information will be transmitted pursuant to Exhibit 2-A.

Information submitted will include full metadata to the extent available, including any restrictions on publication and requirements for attribution in order to encourage responsible use and care of the data. Metadata describes the location, instruments,

methods used to collect and analyze the data, and other information regarding the data. The Industry Parties agree to provide appropriate metadata and to update changes to the metadata when they occur (e.g. to update the location information if the instrument is moved). Unless otherwise stated, the rights to use and redistribution of the data itself, described in Exhibit 2-A, also apply to metadata associated with the data.

- B. Once the Information is received, AOOS will, at no cost to the Industry Parties, provide:
 - A secure website to enable users to discover and access Industry Parties' Information as detailed in Exhibit 2-A.
 - A mirror site to store Exhibit 2-A Information in a secure archive for enhanced security and backup redundancy.
 - Timely archival of and access to Exhibit 2-A Information.
 - Maintenance of the integrity and lineage of Exhibit 2-A Information provided in Exhibit 2-A, by developing procedures for accreditation and immutability of Exhibit 2-A Information for all data provided to the public.
 - Procedures for and regular tracking/reporting of third party use of Exhibit 2-A Information.
 - Integration of the Exhibit 2-A Information into regional scientific products.
- C. NOAA will, at no cost to the Industry Parties, provide:
 - 1. Through the U.S. AOOS Program Office:
 - A coordination role between NOAA and AOOS
 - National-level visibility of the Exhibit 2-A Information.
 - Through the NOAA National Data Centers:
 - a. A permanent stewarded data archive for Exhibit 2-A Information, as detailed in Exhibit 2-A, which in some cases may be retrieved through the AOOS data website described in section III.B.1.
 - Timely archival of and access to Exhibit 2-A Information.
 - Integration of Exhibit 2-A Information into scientific products (i.e., World Ocean Database, bathymetric databases, State of the Climate reports).
 - Public access to information resulting from collaboration under this Annex #2
 - e. Compliance with OMB and NOAA guidelines implementing the Information Quality Act prior to the dissemination to the public of information resulting from collaboration under this Annex #2.

IV. TERMS AND CONDITIONS

- A. <u>Disclosure</u>. The Parties agree that the Industry Parties are not limited by this Annex #2 or the overarching Agreement, and may share the same Information provided to NOAA and AOOS herein with any entity as they see fit. Each Party will recognize each other, as appropriate, as the source of any Information used in presentations, reports, peer-reviewed literature, newsletters, and Web communications.
- B. <u>Claims and Liabilities</u>. Each Party shall be solely responsible for any claims, liabilities or obligations related to its disclosure or acceptance of Information, and for any damages it incurs arising from or related to the acquisition, distribution, maintenance, archiving, or use of any Information, including personal injury or death, property damage, and/or environmental liabilities. Such adjudications against NOAA will be promptly pursued under the Federal Tort Claims Act, 28 U.S.C. § 2671 et. seq., the Federal Employees Compensation Act, 5 U.S.C. § 8101 et seq., or such other legal authority as may be pertinent. Notwithstanding the foregoing, no Industry Party shall have any obligation or liability to any other Industry Party for accessing, receiving, using or relying upon in any way, any Information provided by each of the Industry Parties pursuant to this Annex #2.
- C. <u>Dispute Resolution</u>. In the event of a dispute among the Parties concerning the interpretation or performance of any aspect of this Annex #2, the Party initiating such dispute shall provide the other Parties with written notice of the ground for the dispute and a request for discussions. Within fourteen (14) days (or such other period of time the Parties mutually agree upon) of written notice from the Party to the other Parties, the Parties shall meet and attempt to reach an amicable resolution. If the dispute is not resolved within fourteen (14) days of such meeting, or such time thereafter as is mutually agreed upon, any Party may refer the dispute to the signatory representatives (or their successors) in Section VII of this Annex #2 and/or the Agreement for appropriate resolution.

D. Representations and Warranties:

- 1. NOAA, AOOS and the Industry Parties make no warranty regarding Information disclosed pursuant to this Annex #2, expressed or implied, nor does the fact of distribution by NOAA or AOOS of such Information constitute such a warranty. NOAA, AOOS and Industry Parties cannot assume liability for any damages caused by any errors or omissions in use or reliance upon such Information, nor as a result of the failure of such Information to function on a particular system.
- Industry Parties hereby represent and warrant that they have the right and authority to disclose any Information provided pursuant to this Annex #2 to NOAA and AOOS (or their representatives). All Information is provided "AS

IS." Subject only to the foregoing, the Industry Parties make no representations and extend no warranties, express or implied, and assume no responsibilities or liabilities whatsoever including with respect to, but not limited to, the following:

 The completeness, utility, or accuracy of any Information provided pursuant to this Annex #2; and

 Merchantability or fitness for a particular purpose of any Information provided by the Industry Parties pursuant to this Annex #2; and

- c. The freedom from infringement of any patent, trade secret and/or copyright by any Party's use of this Information provided by the Industry Parties.
- NOAA and AOOS represent and warrant that NOAA and AOOS have the necessary authority, capability and capacity to receive, conduct quality control, store, archive, disperse and use the Information as contemplated herein.
- In cases where NOAA quality-controls Industry Party Information to redistribute in its own data feeds and/or uses Industry Party Information in its own U.S. Government-issued products and services, that Information will be covered by NOAA's own disclaimers of liability.
- 5. With the exception of Industry Party Information covered by subsection IV.D.4., NOAA and/or AOOS shall ensure that the following disclaimer is included in the metadata attached to Information provided to NOAA and/or AOOS by any of the Industry Parties:

"DISCLAIMER of LIABILITY: The user assumes the entire risk related to use of this data and information. NOAA and/or AOOS and their third party data providers are providing this data and information "as is," and disclaim any and all warranties, whether express or implied, including (without limitation) any warranties of completeness, utility, accuracy, merchantability or fitness of this data for a particular purpose.

V. CONTACTS

- A. The contacts of each Party to this Annex #2 are:
 - Krisa M. Arzayus
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 Silver Spring, MD 20910
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Ahmed Osman

HSE Manager

Statoil USA E&P Inc.

3800 Centerpoint Drive, Suite 920

Anchorage, Alaska 99503

Phone: 907-433-5713

Fax: 907-433-5799

E-mail: aosm@statoil.com

B. The Parties agree that if there is a change regarding the information in this section, the Party making the change will timely notify each of the other Parties in writing of such change.

FINAL Revised 10/16/2012

VI. TERM, AMENDMENTS, AND TERMINATION

- A. This Annex #2 will become effective when signed by NOAA, AOOS, and each of the Industry Parties that executes this Annex #2. The Annex #2 will be in effect only among NOAA, AOOS and the Industry Party or Parties that sign this Annex #2. The Annex #2 will expire at midnight EST on November 1, 2016, or at the end of the open water drilling season in calendar year 2016, whichever occurs earlier.
- B. This Annex #2 may be amended within its scope and prior to its expiration by mutual written agreement of all of the Parties.
 - Notwithstanding the foregoing paragraph of this Section VI.B., and the right of each Industry Party to submit additional exclusively owned information pursuant to Section III.A, in such case, the agreement of the other Parties to this Agreement is not required.
- C. Any Party may terminate its participation in this Annex #2 by (1) providing thirty days written notice to all other Parties; or (2) mutual written agreement of the Parties.
- D. Upon termination of this Annex #2 for any reason, Information provided pursuant to this Annex #2 shall continue to be available to all the Parties to the Annex #2 and (to the extent legally permissible) to the public.
- E. Each Party shall be solely responsible for the payment of any expenses it incurs in implementing this Annex #2.
- F. In the event this Annex #2 is terminated, each Party shall be solely responsible for the payment of any expenses it has incurred.
- G. NOAA's participation in this Annex #2 is subject to the availability of appropriated funds.

VII. APPROVALS

A.	ACCEPTED AND APPROVED for NATIONAL OCEANIC and ATMOSPHERIC AD U.S. DEPARTMENT OF COMMERCE	MINISTRATION
	By: Stohenes Date:	12/11/12
	Dr. Jane Lubchenco Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator	
B.	ACCEPTED AND APPROVED for ALASKA OCEAN OBSERVING SYSTEM	
	Molly McCammon AOOS Executive Director	Date: 12/14/12
C.	ACCEPTED AND APPROVED for CONOCOPHILLIPS COMPANY	
BAJ	David W. Brown Attorney-in-Fact	Date: 1/17/2013
D.	ACCEPTED AND APPROVED for SHELL GULF OF MEXICO INC.	
	By:	
	Gary D. Cameron Attorney-In-Fact	Date: 1/14/2013

E. ACCEPTED AND APPROVED for SHELL OFFSHORE INC

Say D. Cameron

Date: 1/14/2013

Gary D. Cameron Attorney-In-Fact

F. ACCEPTED AND APPROVED for STATOIL USA E&P INC.

Bv

Lars Andreas Sunde

Head of Anchorage Office

Exhibit 2-A

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Data Deliverables

Biological Oceanography

Zooplankton Ecology

Information Description	Source (Supplying Contract or)	Forma t	Time Perio d	Location	Ownership	Party Submitti ng Informat ion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
Zooplankton CRUISE STATION DATE_TIME_L OC GEAR_TYPE DEPTH_M LATITUDE LONGITUDE DENSITY_M3 SCIENTIFIC_N AME LIFE_STAGE BIOMASS_MG _M3 REPORT CONTRACTOR NOTES	UAF	File gdb	2008-2010	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Chlorophyll CRUISE STATION DATE_TIME_L OC DEPTH_M DEPTH_SAMP LE_M LATITUDE LONGITUDE CHLA_MG_L TOTAL_N_UM OL NITRITE_UMO L DIN_UMOL NITRATE_UM OL AMMONIUM_ UMOL SILICATE_UM OL PHOSPHATE_ UMOL REPORT CONTRACTOR	UAF	File	2008-2010	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230- 0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Benthic Ecology

Information Description	Source (Supplying Contractor)	Format	Tim e Peri od	Location	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delive ry?	Available for Public Release Upon Transmittal?
Infauna - Benthic Sediments SHIP CRUISE STATION REPLICATE LATITUDE LONGITUDE DATE_TIME_L OC GEARCODE GEARSIZE SIEVE_SIZE DEPTH_M TAXON CODE FRAGMENT COUNT_INDIVI DUAL WEIGHT_GRA MS INVESTIGATOR REPORT CONTRACTOR NOTES	UAF	File gdb	200 8- 201 0	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contractor)	Format	Tim e Peri od	Location	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delive ry?	Available for Public Release Upon Transmittal?
Chemical Sediments SHIP CRUISE STATION REPLICATE LATITUDE LONGITUDE DATE_TIME_L OC DEPTH_M CHLA_MG_CM 3 PHAEO_MG_C M3 CHLA_MG_M2 PHAEO_MG_M 2 INSTR_CHL TOTAL_ORG_C _PCT CONC_N_PCT CONC_N_PCT DEL13C DEL15N SAMPLE_WT_ MG GRAVEL_PCT SAND_PCT MUD_PCT WATER_PCT REPORT CONTRACTOR NOTES	UAF	File gdb	200 8- 201 0	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Epibenthic Species SHIP CRUISE GEAR STATION HAUL LATITUDE LONGITUDE DATE_TIME_L OC DEPTH_M PHYLUM CLASS ORDER FAMILY TAXON ID_LOC REPORT CONTRACTOR NOTES	UAF	File gdb	200 9	Chukchi: Klondike Burger	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contractor)	Format	Tim e Peri od	Location	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delive ry?	Available for Public Release Upon Transmittal?
Epibenthic Specimens SHIP CRUISE GEAR GEAR GEAR_SWATH STATION HAUL LATITUDE LONGITUDE DATE_TIME_L OC DEPTH_M TOW_QUALITY ATAY TAXON FRAGMENT SPLIT_RATIO COUNT_RAW WEIGHT_RAW TOW_DISTANC E TOW_AREA_M 2 ABUNDANCE_ 1000M2 BIOMASS_G_1 000M2 COUNT_CORRE CTED WEIGHT_CORR ECTED INVESTIGATOR REPORT	UAF	File gdb	200 9- 201 0	Chukchi: Klondike (2009-10) Burger (2009- 10) Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Redox Measurements SHIP CRUISE STATION REPLICATE LATITUDE LONGITUDE DATE_TIME_L OC DEPTH_M REDOX_MV DEPTH_REDOX _CM REPORT CONTRACTOR NOTES	UAF	File gdb	201	Chukchi: Klondike Burger Statoil	COP/Shell /Statoil	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Stable Isotope Filter POM SHIP CRUISE STATION LATITUDE LONGITUDE DATE_TIME_L OC DEPTH_SAMPL E_M MASS_C_UG MASS_N_UG DEL13C DEL15N FILTER_FRACTI ON LAB_DUPLICAT E REPORT CONTRACTOR NOTES	UAF	File gdb	201	Chukchi: Klondike Burger Statoil	COP/Shell /Statoil	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contractor)	Format	Tim e Peri od	Location	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delive ry?	Available for Public Release Upon Transmittal?
Stable Isotope Tissue SHIP CRUISE STATION REPLICATE HAUL LATITUDE LONGITUDE DATE_TIME_L OC GEARCODE DEPTH_M TAXON DEL13C DEL15N CONC_N_PCT CONC_C_PCT SAMPLE_WT_ MG TAXON_TYPE LIPID_EXTRACT LAB_DUPLICAT E REPORT CONTRACTOR	UAF	File gdb	201	Chukchi: Klondike Burger Statoil	COP/Shell /Statoil	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Fisheries

Information Description	Source (Supplying Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitting Informatio	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
Fisheries Catch CRUISE PROSPECT STATION GEAR HAUL TOW_QUALIT Y CPUE_FACTO R FAMILY_SCI FAMILY_COM NAME_SCI NAME_COM COUNT WEIGHT_G REPORT CONTRACTOR NOTES	UAF (2009) UAF & LGL (2010)	File gdb	2009-2010	Chukchi: Klondike (2009-10) Burger (2009- 10) Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Fisheries Capture SHIP CRUISE PROSPECT STATION GEAR HAUL DATE_TIME_L OC TOW_DURATI ON CATCH_VOL DEPTH_M DEPTH_GEAR _MAX LATITUDE_ST ART LONGITUDE_ START LATITUDE_EN D LONGITUDE_END TOW_DIST TOW_QUALIT Y CPUE_FACTO R HAUL_NOTE REPORT CONTRACTOR NOTES	UAF (2009)/ UAF & LGL (2010)	File	2009-2010	Chukchi: Klondike (2009-10) Burger (2009- 10) Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

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Information Description	Source (Supplying Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitting Informatio n	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
Fisheries Specimen CRUISE STATION GEAR HAUL NAME_SCI SPECIMEN_N UM LENGTH_TYP E LENGTH_MM WEIGHT_G SEX AGE DIET SI_13C SI_15N REPORT CONTRACTOR NOTES	UAF (2009)/ UAF & LGL (2010)	File gdb	2009-2010	Chukchi: Klondike (2009-10) Burger (2009- 10) Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Seabirds

Information Description	Source (Supplying Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informat ion	AOOS Guidance for Intake of Data	Near Real Time Delivery ?	Available for Public Release Upon Transmittal?
Seabird Observations Observations Observations TRANSECT_ID TRANSECT_ID DATE_TIME_LOC SPECIES TOTAL_COUNT DISTANCE_CATEGO RY OBS_ANGLE_DEGR EE AGE_CLASS HABITAT BEHAVIOR LATITUDE LONGITUDE REPORT CONTRACTOR NOTES	ABR, Inc.	File gdb	2008	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informat ion	AOOS Guidance for Intake of Data	Near Real Time Delivery	Available for Public Release Upon Transmittal?
Seabird Transects TRANSECT_ID LINE_ID LINE_REP DATE_TIME_START_LOC TRANSECT_TIME_END_LOC TRANSECT_START_LATITUDE TRANSECT_START_LONGITUDE TRANSECT_END_LATITUDE TRANSECT_END_LATITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE TRANSECT_END_LONGITUDE BEAUFORT VISIBILITY_KM OBSERVER_CONDITIONS ICE_COVER_PCT TRANSWIDTH_M OBSERVER REPORT CONTRACTOR NOTES	ABR, Inc.	File gdb	2008	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Marine Mammal Ecology

Information Description	Source (Supplying Contractor)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
Marine Mammal Effort and Observations ID_KEY OBS_OR_EFF SHIP CRUISE LINE_ID LINE_REP LATITUDE LONGITUDE DEPTH_M WATCH RECORDED_BY OBSERVER_LOC OBSERVER_LOC OBSERVER_CENT ER OBSERVER_STAR BRD BEAUFORT VISIBILITY GLARE_FROM	Oasis Environment al, Inc.	File gdb	2008-2010	Chukchi: Klondike (2008-10) Burger (2008- 10) Statoil (2010)	COP/Shell (2008-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230- 0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contractor)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
GLARE_TO ICE_COVER_PCT PACK_ICE_DIST_K M START_DATE_TIME _LOC END_DATE_TIME _LOC START_LATITUDE START_LONGITU DE END_LATITUDE END_LONGITUDE SIGHTING_ID SIGHTING_REC_N O SPECIES INDIVIDUALS JUVENILES WHERE_AT WHERE_TO BEHAVIOR_1 BEHAVIOR_2 REACTION PACE MOVEMENT WATER_ICE RETICLES SIGHTING_DISTA									

Information Description	Source (Supplying Contractor)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
NCE_M SIGHTING_CUE ID_RELIABILITY WIND_SPEED_M_ SEC WIND_HDG TEMP_AIR_C SST_C SALINITY_PSU PRESSURE_BAR REPORT CONTRACTOR NOTES									

Chemical Oceanography

Information Description	Source (Supplying ng Contractor)	Form at	Time Perio d	Locatio n	Ownership	Party Submitti ng Informat ion	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
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Information Description	Source (Supplying Contractor)	Form at	Time Perio d	Locatio n	Ownership	Party Submitti ng Informat ion	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Ocean Acidification CRUISE SECT_ID STATION CASTNO SAMPNO BTLNBR DATE_TIME_L OC LATITUDE LONGITUDE DEPTH_M DIC DIC_FLAG_W TA TA_FLAG_W PH PH_FLAG_W PCO2 PCO2_FLAG_W OMEGA_CA OMEGA_CA OMEGA_CA OMEGA_CA OMEGA_AR OMEGA_AR OMEGA_AR CONTRACTOR NOTES	UAF	File	2010	Chukchi : Klondik e Burger Statoil	COP/Shell/St atoil	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907- 230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Passive Acoustics

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
Acoustic Acquisition CLIENT_OPERATO R RECORDER_ID RECORDER_TYPE RECORDER_SERIAL NUM LATITUDE LONGITUDE LATITUDE_ANCHO R LOCATION BOTTOM_DEPTH_ M DEPLOY_DATE_LO C DEPLOY_TIME_LO C DEPLOYMENT REC_START_DATE_ LOC REC_START_TIME_ LOC REC_STOP_DATE_L	JASCO Research	File	200 9- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10) Cape Lisburne Array (2009- 10) Point Lay Array (2009- 10) Wainwright Array (2009- 10) Acoustic Study Areas Burger (2010) Klondike (2010) Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
OC REC_STOP_TIME_L OC AUTORELEASE_DA TE_LOC AUTORELEASE_TI ME_LOC ACOUST_RELEASE _CODE RECOVER_DATE_L OC SAMPLE_RATE_HZ BIT_DEPTH DUTY_CYCLE_DN DUTY_CYCLE_PCT RECORDER_MODE L DYR_LOWER_LIM DYR_UPPER_LIM PROGRAM_NAME STUDY_YEAR REPORT CONTRACTOR NOTES									
Acoustic Sound Clips RECORDER_ID SOUND_CLIP SOUND_SOURCE	JASCO Research	File gdb	200 8- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10)	COP/Shell (2008-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom	No	Initial metadata released to public through AOOS data

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
RECORD_DATE_LO C RECORD_TIME_LO C DESCRIPTION STUDY_YEAR REPORT CONTRACTOR NOTES				Cape Lisburne Array (2008- 10) Point Lay Array (2010) Wainwright Array (2009)			(rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.		system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Acoustic Sound Supporting Files	JASCO Research	*.wav *.png *xls	200 8- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10) Cape Lisburne Array (2008- 10) Point Lay Array (2010) Wainwright Array (2009)	COP/Shell (2008-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
									1,2012 all metadata and data will be available for public release upon transmittal.
Ambient Noise RECORDER_ID SPECTRA_PLOT DESCRIPTION REC_START_DATE_LOC REC_START_TIME_LOC REC_STOP_DATE_LOC REC_STOP_TIME_LOC STUDY_YEAR REPORT CONTRACTOR NOTES	JASCO Research	File gdb	200 7- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10) Cape Lisburne Array (2010) Point Lay Array (2007- 2010) Wainwright Array (2010) Acoustic Study Areas Klondike (2009) Statoil (2010)	COP/Shell (2007-09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Ambient Noise Supporting Files	JASCO Research	*.png *.jpg	200 7-	Chukchí: Acoustic	COP/Shell (2007-09)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data	No	Initial metadata

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
			201	Arrays Barrow Array (2010) Cape Lisburne Array (2010) Point Lay Array (2007- 2010) Wainwright Array (2010) Acoustic Study Areas Klondike (2009) Statoil (2010)	COP/Shell /Statoil (2010)		will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.		released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Marine Mammal Presence RECORDER_ID SPECIES FIRST_DATE_LOC LAST_DATE_LOC DETECTION_GRAP H STUDY_YEAR REPORT	JASCO Research	File gdb	200 9- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10) Point Lay Array (2009- 10) Wainwright Array (2010) Acoustic	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
CONTRACTOR NOTES				Study Areas Statoil (2010)					case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Marine Mammal Presence Supporting Files	JASCO Research	*.png	200 9- 201 0	Chukchi: Acoustic Arrays Barrow Array (2009-10) Point Lay Array (2009- 10) Wainwright Array (2010) Acoustic Study Areas Statoil (2010)	COP/Shell (2009) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon

Information Description	Source (Supplying Contractor	Form at	Tim e Peri od	Location	Ownership	Party Submitti ng Informa tion	AOOS Guidance for Intake of Data	Near Real Time Deliver y?	Available for Public Release Upon Transmittal?
									transmittal.

Chemical Characterization

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Field Amphipod STUDY_YEAR CRUISE_NUMBE R STATION REPLICATE SAMPLE_TYPE LATITUDE LONGITUDE DEPTH_METERS DATE_DEPLOYE D TIME_DEPLOYE D_LOC TIME_RETRIEVE D_LOC DATE_RETRIEVE D SAMPLING_MET	Battelle / Exponen t	File gdb	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
HOD REPORT CONTRACTOR NOTES									
Field NonAmphipod STUDY_YEAR CRUISE_NUMBE R STATION REPLICATE SAMPLE_TYPE LATITUDE LONGITUDE DEPTH_METERS TIME_COLLECTE D_LOC DATE_COLLECTE D SAMPLING_MET HOD REPORT CONTRACTOR NOTES	Battelle/ Exponen t	File gdb	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Lab Inorganic Core SAMPLE_ID STUDY_YEAR	Battelle	File gdb	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom	No	Initial metadata released to public through AOOS data system until December 1, 2012.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
CRUISE_NUMBE R STATION REPLICATE SAMPLE_TYPE DATE_COLLECTE D LATITUDE LONGITUDE SECTIONING_IN T REPORT CONTRACTOR NOTES							(rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.		Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Lab Inorganic Grain SAMPLE_ID SURF_CORE_FL AG INTERVAL GRAVEL_PCT SAND_PCT SILT_PCT CLAY_PCT TOTAL_PCT REPORT CONTRACTOR NOTES	Battelle	File gdb	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Lab Inorganic Metal SAMPLE_ID SURF_CORE_FL AG LAB_ID LAB_SAMPLE_T YPE DATE_COLLECTE D DATE_EXTRACT ED ANALYTICAL_IN STR ANALYTICAL_IN STR ANALYTICAL_M ETH SDG MOISTURE_PCT LIPID_PCT MATRIX SAMPLE_SIZE SIZE_UNIT_BASI S UNITS PARAMETER PARAM_CODE VALUE	Battelle	File	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
QUAL DETECT_LIMIT DETECT_LIMIT_CODE TARGET RECOVERY_PCT RECOVERY_PCT _QUAL RPD_PCT RPD_QUAL REPORT CONTRACTOR NOTES									
Lab Inorganic Surficial SAMPLE_ID STUDY_YEAR CRUISE_NUMBE R STATION REPLICATE SAMPLE_TYPE DATE_COLLECTE D LATITUDE LONGITUDE REPORT CONTRACTOR	Battelle	File gdb	2008	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
NOTES			100						
Lab Organic SAMPLE_ID STUDY_YEAR CRUISE_NUMBE R STATION REPLICATE SAMPLE_TYPE SURF_CORE_FL AG LAB_ID LAB_SAMPLE_T YPE LATITUDE LONGITUDE DATE_EXTRACT ED DATE_EXTRACT ED ANALYTICAL_IN STR ANALYTICAL_M ETH SDG MOISTURE_PCT LIPID PCT	Battelle	File	2008-2009	Chukchi: Burger Klondike	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230- 0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contract or)	Form at	Time Perio d	Location	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
MATRIX SAMPLE_SIZE SIZE_UNIT_BASIS UNITS PARAMETER PARAM_CODE VALUE QUAL DETECT_LIMIT DETECT_LIMIT CODE TARGET RECOVERY_PCT _QUAL RPD_PCT RPD_QUAL REPORT CONTRACTOR NOTES									

Marine Mammal Monitoring and Mitigation

Information Description	Source (Supplyi ng Contract or)	Form at	Time Peri od	Locati	Ownership	Party Submittin g Informati	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
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Information Description	Source (Supplying Contract or)	Form at	Time Peri od	Locati on	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
VESSELNAME DECLONG DECLAT DATETIMEUTC DAY MONTH YEAR HOUR MINUTE SECOND WATERDEPTH WATCH RECORDEDBY OBSERVERLOCA TION OBSERVERCENT ER OBSERVERSTAR BOARD ACTIVITY SEISMICLINE NOOFGUNS ARRAYVOLUME WINDFORCE VISIBILITY LIGHTORDARK GLAREAMOUNT GLAREPOSITION	LGL	File	2006 - 2007	Chukc	COP/Shell	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplying Contract or)	Form at	Time Peri od	Locati on	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
FROM GLAREPOSITION TO ICELOCATION ICEPERCENT PACKICEDISTAN CE SIGHTINGID SIGHTINGRECOR DNO SPECIES INDIVIDUALS JUVENILES WHEREAT WHERETO RETICLES SIGHTINGDISTA NCE BEHAVIOR1 BEHAVIOR2 WATERORICE CPA PACE MOVEMENT REACTION SIGHTINGOBSER VEDBY SIGHTINGRECOR DEDBY									

Information Description	Source (Supplying Contract or)	Form at	Time Peri od	Locati	Ownership	Party Submittin g Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
 IDRELIABILITY HOURPZSZ MINUTEPZSZ SECONDPZSZ COMMENTS OTHERBOAT CONTRACTOR REPORT_NAME NOTES REPORT 									

Marine Mammal Aerial Observations

Information Description	Source (Supplyin g Contracto r)	Form at	Time Period	Location	Ownership	Party Submittin g Informatio n	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Observations DECLAT DECLONG SIGHTINGNU SPECIES BEHAVIOR SPEED HEADING ONOFFTRANS ANGLE ALTITUDE OBSVR COMMENTS DATE_ CONTRACTOR INDIVIDUALS MOVEMENT JUVENILES PLATFORM	EBASCO (1989-90) LGL (2006- 2008, 2010)	File gdb	1989 - 1990, 2006- 2008, 2010	Chukchi and Beaufort	Shell (1989- 90, 2008, 2010) COP/Shell (2006-07)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Transects TABLEINDEX DDMMYY TRANSECT TP TIMESTART TIMEEND	EBASCO (1989-90) LGL (2006- 2008, 2010)	File gdb	1989 - 1990, 2006- 2008, 2010	Chukchi and Beaufort	Shell (1989- 90, 2008, 2010) COP/Shell (2006-07)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on

Information Description	Source (Supplyin g Contracto r)	Form at	Time Period	Location	Ownership	Party Submittin g Informatio n	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
ALT AIRTEMP WINDS CLOUDCOVE R ROBS LOBS DTOBS JCEL SEAL VISL GLAREL JCER SEAR VISR GLARER SEAR VISR GLARER SEISMIC PATCHNO WITHSOMEM U FLIGHT WEIGHT							Ocean Workspace account or by DVD or CD if the files are large.		case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Study Logistics

Information Description	Source (Supplyin g Contracto r)	Form at	Time Period	Locati on	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Sampling Stations STATION LAT LON STUDY_AREA STUDY_TYPE STUDY_YEAR	RDI	File gdb	2008-2010	Chukc hi	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Study Area Polygons NAME SIZE YEAR TYPE	RDI	File gdb	2008-2010	Chukc hi	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.

Information Description	Source (Supplyin g Contracto r)	Form at	Time Period	Locati on	Ownership	Party Submitti ng Informati on	AOOS Guidance for Intake of Data	Near Real Time Delivery?	Available for Public Release Upon Transmittal?
Study Area Divisions STUDY_AREA PRIORITY STUDY_TYPE SURVEY_LINE LOCATION LINE_TYPE	RDI	File gdb	2008-2010	Chukc hi	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.
Transect Lines STUDY_AREA PRIORITY STUDY_TYPE SURVEY_LINE LOCATION LINE_TYPE	RDI	File gdb	2008-2010	Chukc hi	COP/Shell (2008- 09) COP/Shell /Statoil (2010)	RDI	SEE MEMORANDUM FOR COMPLETE DETAILS. Data will be transmitted to the AOOS data contractor Rob Bochenek at Axiom (rob@axiom.com; 907-230-0304) via a dedicated AOOS Ocean Workspace account or by DVD or CD if the files are large.	No	Initial metadata released to public through AOOS data system until December 1, 2012. Data released for scientific use on case by case basis. After December 1,2012 all metadata and data will be available for public release upon transmittal.