



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Natural Resources

Division of Oil & Gas
Anchorage Office

550 W. 7th Avenue Suite 1100
Anchorage, Alaska 99501-3560
Main: 907.269.8800
Fax: 907.269.8939

April 2, 2014

Ms. Suzan Simonds
Permits and Regulatory Manager
SAExploration, Inc.
8240 Sandlewood Place, Suite 102
Anchorage, Alaska 99507

RE: **MLUPCI 13-006** Geophysical Exploration Permit
SAExploration, Inc. Upper Cook Inlet 3D Seismic Program

Dear Ms. Simonds:

The Department of Natural Resources (DNR), Division of Oil and Gas (Division), received the geophysical exploration permit application from SAExploration, Inc. (SAE) for a seismic survey proposed on State of Alaska waters in Upper Cook Inlet. After considering the provisions of 11 AAC 96, comments received during the application review period and other considerations described in this document, the Division approves SAE's Upper Cook Inlet 3D Seismic Program permit application dated August 22, 2013, as amended by this approval, to conduct geophysical survey. The enclosed permit, MLUPCI 13-006, authorizes SAE to conduct a marine offshore data mapping seismic program using autonomous nodal seismic recording equipment and air guns as the source subject to the conditions of the permit.

This permit is effective April 2, 2014 to December 31, 2015.

SCOPE OF REVIEW

Issuance of a permit under 11 AAC 96 is not a disposal of an interest in land and does not grant a preference right to a lease or other disposal. The permit is revocable for cause for violation of a permit stipulation or the provisions of this chapter, and is revocable at will if the department determines that the revocation is in the state's interest. Each permit issued is subject to any stipulations the department determines necessary to: assure compliance with this chapter; to minimize conflicts with other uses; to minimize environmental impacts; or otherwise to be in the interests of the state. Public notice of any miscellaneous land use application is discretionary under 11 AAC 96.030(c). The Director of the Division has the right at any time to amend or modify any provisions of this permit, or revoke this permit.

PROJECT LOCATION

This project is located in the open waters of Cook Inlet from approximately Moose Point south to Nikiski as the eastern border and extending to the west side from the West Forelands north to the Chuitna River. The project is located on State of Alaska land and water. The proposed project will be conducted in the following areas within the Seward Meridian, Township 7-11N, Range 9-14W. (See Upper Cook Inlet Seismic Program Plan of Operations Map).

PROJECT DESCRIPTION

SAE proposes to acquire 3D geophysical data in an area that encompasses approximately 406 square miles of Cook Inlet. The program is intended to obtain marine offshore data by mapping the subsurface and its geological structure. SAE will use autonomous nodal seismic recording equipment and air guns as the source. The project could take up to a year to complete.

AGENCY REVIEW

The Division conducted an agency review from August 26, 2013 to August 30, 2013. One agency response was received during the comment period. The Division's response addresses the material issues and facts raised relevant to the proposed project and authorization under the State of Alaska's miscellaneous land use regulations (11 AAC 96).

- **United States (US) Department of the Interior, Fish and Wildlife Service:** The Fish and Wildlife Service noted that it coordinated with ABR, Inc., Environmental Research and Services potential impacts to Steller's eiders from the proposed project. The agency provided a list of species that may be affected with the project, and noted that section 7 consultation was not completed.

Applicant's Response:

"SAE believes that the commenter is referring to a different project and area. SAE does not believe that section 7 consultation for Steller's or Spectacled Eiders will be necessary in their prospected area and that it is not aware of any consultation completed before. SAE asserted that the species are not listed within the project area on the Fish and Wildlife Service web page and map; therefore, SAE concluded that no consultation is necessary for this species. SAE will contact and respond to the commenter's inquiry.

Division's Response:

The Division communicated with the US Fish and Wildlife, the commenter, for information and clarification on any requirements or voluntary processes associated with SAE's proposed project. The commenter provided the agency's website for information on the consultation process at <http://alaska.fws.gov/fisheries/fieldoffice/anchorage/angered/consultation.htm>. The website includes a link to the Anchorage Fish and Wildlife Field Office Endangered Species Listing. The Division forwarded this information to the applicant.

SAE emailed the Division on December 3, 2013 indicating that SAE had received a Biological Assessment for Steller's Eiders from the US Fish and Wildlife Service.

PUBLIC REVIEW

The Division posted a 30 day public notice from September 2, 2013 through October 2, 2013. The notice was posted on both the Alaska DNR Public Information Center and the Division's websites; and published in the Anchorage Daily News and the Peninsula Clarion with a deadline for comments on October 2, 2013. The notice was faxed to post offices in Tyonek, Soldotna, Nikiski, and Kenai for posting. The notice was also e-mailed to the applicant, City of Kenai, Native Village of Tyonek, Cook Inlet Region, Inc. (CIRI), City of Soldotna, Alaska Mental Health Trust Lands, Apache Alaska Corporation, Buccaneer Alaska, and ConocoPhillips. The notice was mailed to the Mayor of the Kenai Peninsula Borough, the Tyonek Native Corporation, and North Peninsula Community Council, Inc.

Three public comments were timely received and considered.

- **General Communication, Inc. (GCI):** The commenter expressed concern that the equipment for the survey work may contact the company's telecommunications fiber optic cable along the seafloor within Cook Inlet.

Applicant's Response:

SAE will work with GCI to establish a reasonable setback for nodal placement.

Division's Response:

The applicant's response is noted.

- **Alaska Department of Fish and Game (ADFG):** The commenter expressed concern that there will be overlap between commercial fishing vessels, marine mammals, migratory birds and SAE's survey. ADFG is also concerned about noise disturbance to marine mammal, waterfowl, and Pacific salmon. ADFG requests that SAE contact the Upper Cook Inlet (UCI) commercial and sport fisheries managers, to avoid interference with commercial and sport fishing operations in the area. They also requested That SAE contact the Divisions of Habitat and Wildlife Conservation if any negative impacts from below-water air gun blasts on marine mammals, waterfowl, or Pacific salmon are witnessed by the Protected Species Observers stationed on the vessels.

Applicant's Response:

"SAE will consult with fishery groups prior to each job in which water work of any kind is involved. SAE also employs biologists that serve as Marine Mammal Observers (MMO) and Protected Species Observers (PSO) during seismic operations. Their responsibilities are to document marine mammal reactions and any other observable reactions to marine life that may be affected, this is then reported.

SAE stated that it has already developed conservative safety radii for marine mammals in consultation with National Marine Fishery Service (NMFS) and the US Fish and Wildlife Service. SAE will conduct sound source verification of all noise sources soon after project initiation and will adjust safety radii as needed based on the survey results. SAE stated that most all the noise study or information is collected on the noise levels in the water, this is due to the pressure release effect and sound propagation in the water column, little underwater seismic sound gets into the air. The transfer of noise from water to air does not happen easily due to the differences in density between the two. SAE stated that there has not been any research to their knowledge that relates to above water noise from airgun releases and there has been no documentation that suggests that airgun releases below the water disturbs waterfowl above water.”

Division’s Response:

The request to contact ADFG program managers has been added to the Geophysical Permit Conditions.

SAE emailed the Division on December 3, 2013 indicating that SAE had received an Incidental Harassment Authorization (IHA) from NMFS.

- **Natural Resources Defense Council (NRDC):** Commenter expressed four concerns with the application.
 1. **The commenter feels that the proposed seismic surveys will not be conducted in a manner that will comply with the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA).**

Applicant’s Response:

“SAE is well aware of the statement made in our plan of operations and we plan to operate in full compliance with all federal, state and local regulations when we conduct our operations. SAE has made application to the NMFS and is working closely with them and other agencies on the proper authorizations under our business plan.”

Division’s Response:

As part of the review process, the Division contacted NMFS for information and clarification on any voluntary NMFS process. After conversations with NMFS and with the applicant, the applicant intends to pursue the voluntary consultation with the appropriate agency before operations commence. The Geophysical Exploration permit further requires the permittee and its contractors to secure all necessary local, state, and federal permits and approvals before undertaking operations.

2. The commenter is concerned with other proposed surveys for the area and the effects it will have on the Marine Habitat.

Applicant's Response:

"The experienced team at SAE has been conducting seismic operations in Cook Inlet waters for many years. Our focus has and will always be on using the most current available mitigation processes and techniques that help to protect the marine mammals and the environment in which we work."

Division's Response:

The applicant, SAE, has been identified as the potential contractor for Furie's proposed seismic survey. Concurrent seismic programs are not anticipated.

3. The commenter is concerned about the cumulative impacts of SAE's surveys, when considered in combination with other industrial activities occurring in Cook Inlet that are increasing noise pollution in the same marine habitat.

Applicant's Response:

"SAE is working closely with agencies to address the cumulative impacts concern. Again, our focus is on using processes that protect the marine mammals and the environment in which we work."

Division's Response:

The Division included stipulations attached to this permit that are necessary to minimize impacts to the environment and potential conflicts with other users occurring in Cook Inlet. The stipulations include requirements to coordinate with local users to prevent conflicts and insure compliance with setback guidelines.

SAE emailed the Division on December 3, 2013 indicating that SAE had received an IHA from NMFS.

4. The commenter encourages the state to deny the permit or specifically require compliance with federal law as condition of approval.

Division's Response:

The permit requires the permittee and its contractors to secure all necessary local, state, and federal permits and approvals before undertaking operations.

PERFORMANCE GUARANTEE

The applicant has provided the Division with a performance guarantee under 11 AAC 96.060 in the amount of \$100,000. Security furnished must be conditioned upon compliance with the permit. The performance guarantee was based on the scope and nature of the planned activity and the potential cost of restoring the permit site.

APPLICATION APPROVAL

Should any unforeseen issues arise, the Director of the Division has the authority to revoke and amend this permit. As detailed in this authorization, the Division shall be notified if a surface use conflict occurs as a result of actions authorized by this approval. All operations conducted under this permit are subject to inspection by the Division, and if damage occurs, appropriate interest holders will be engaged, and corrective action will be prescribed. The Division will impose additional provisions as necessary, as set out in 11 AAC 96.040 at any time during the activity approved under this authorization to minimize impacts and conflicts.

The Division considered all facts material to this seismic application, including the seismic, timely received public comments, and permit provisions contained in this authorization per 11 AAC 96.040(b). The Division has determined that this permit and attached provisions, as conditioned by this approval for this non-permanent activity is in the interests of the state. Conditions in this authorization are necessary to protect the state's interest and the public interest.

A person affected by this decision who provided timely written comment or public hearing testimony may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 days of issuance of this decision and may be mailed or delivered to Mr. Joe Balash, Commissioner, DNR, 550 W 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 907-269-8918, or sent by electronic mail to dnr.appeals@alaska.gov. This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st day after issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the DNR.

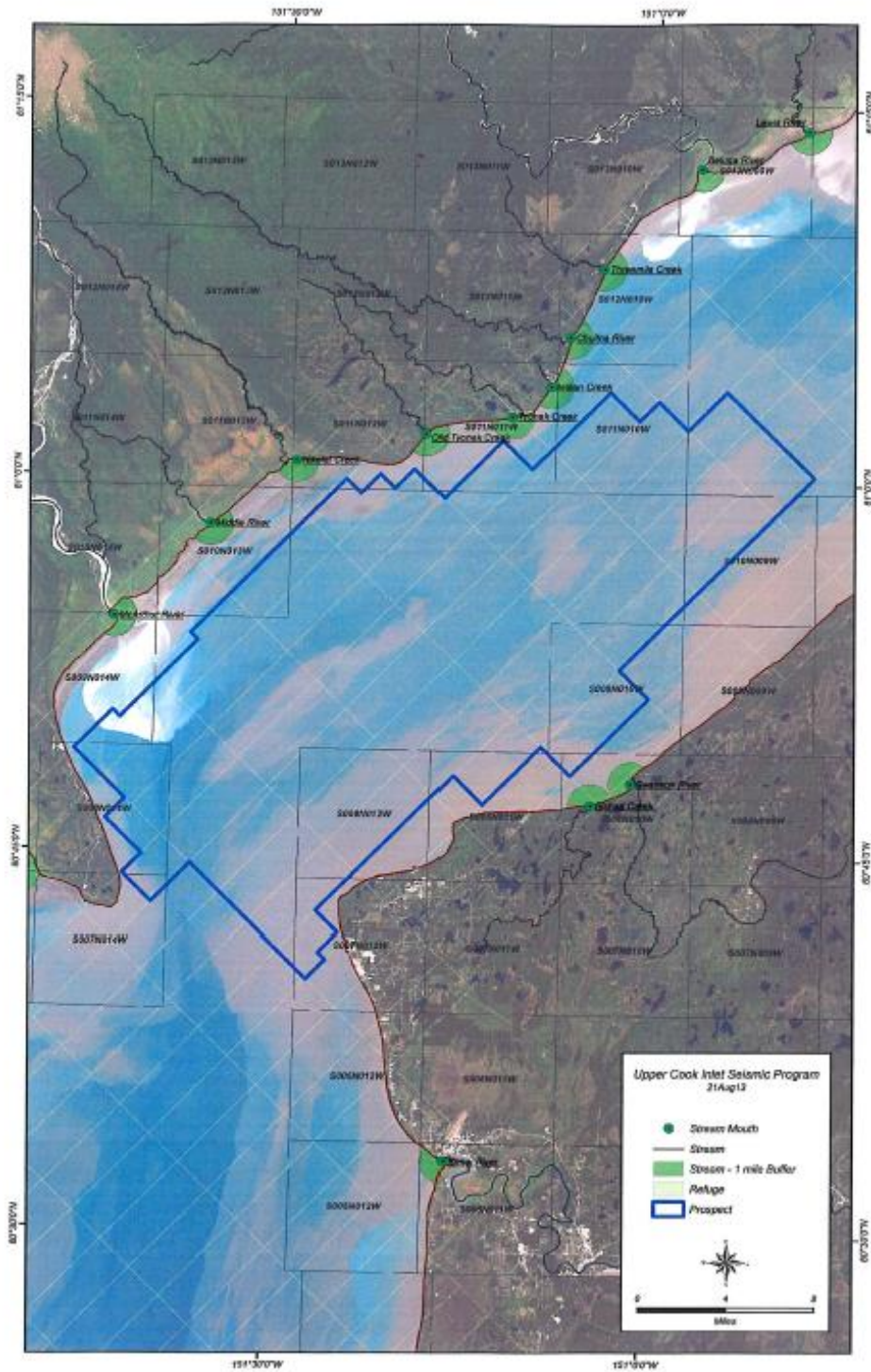
Sincerely,



Kim Kruse
Permitting Manager

Attachments: Upper Cook Inlet Seismic Program Plan of Operations Map
Geophysical Permit Conditions

ecc: Kimberly Klein, Kimberly_Klein@fws.gov
Ellen Lance, ellen_lance@fws.gov
Jack J. Hewitt, jack.j.hewitt@usace.army.mil
Meghan M. Kelly, mkelly@gci.net
Gary Haynes, ghaynes@gci.net
Megan E. Marie, megan.marie@alaska.gov
Jesse Coleman, jesse.coleman@alaska.gov
Michael Petrula, michael.petrula@alaska.gov
Alvin G. Ott, al.ott@alaska.gov
Daniel Rosenberg, dan.rosenberg@alaska.gov
Patrick A. Shields, pat.shields@alaska.gov
Samuel S. Ivey, samuel.ivey@alaska.gov
Robert Small, bobsml@alaska.gov
Bronwyn Jones, bronwyn.jones@alaska.gov
Davin Holen, davin.holen@alaska.gov
Michael Daigneault, michael.daigneault@alaska.gov
Taryn Kiekow, tkiekow@nrdc.org
Michael Jasny, mjasny@nrdc.org
Rebecca Riley, rriley@nrdc.org
Mike Gosliner, mgosliner@mmc.gov
Donna Wieting, donna.wieting@noaa.gov
P. Michael Payne, michael.payne@noaa.gov
Timothy Law, tim.law@alaska.gov
Kyle Smith, kyle.smith@alaska.gov
Kevin Pike, kevin.pike@alaska.gov
Tom Barrett, thomas.barrett@alaska.gov
Jeanne Frazier, jeanne.frazier@alaska.gov



Upper Cook Inlet Seismic Program Plan of Operations Map

GEOPHYSICAL PERMIT CONDITIONS

Date Issued:	04/01/2014
MLUP:	13-006
Project Name:	Upper Cook Inlet 3D
Type:	Geophysical Exploration
Permittee:	SAExploration, Inc.
Client:	SAExploration, Inc.

Geophysical and Seismic activities are subject to the following permit conditions:

1. The permittee shall defend, indemnify and hold the State of Alaska harmless from and against any and all claims, damages, suits, losses, liabilities and expenses for injury to or death of persons and damage to or loss of property arising out of or in connection with the entry on and use of State lands authorized under this approval by the permittee, its contractors, subcontractors and their employees.
2. The permittee shall notify and obtain approval from the Division of Oil and Gas (Division) in advance of any activities which significantly deviate from the approved plan. Any action taken by the permittee or his agent which increases the overall scope of the project or which negates, alters, or minimizes the implied intent of any stipulation contained in this permit will be considered a significant deviation from the approved plan.
3. The permittee and its contractors shall not begin any seismic operations until receiving all necessary local, state and federal permits and approvals plus receiving letters of non-objection from private property owners or leaseholders.
4. The permittee shall inform and ensure compliance with all conditions of this approval by its employees, agents and contractors, including subcontractors at any level.
5. Approval of this permit does not constitute the specific approval required for surface entry without an agreement with the surface owner. Before entering on privately owned surface land in exercise of the state's mineral rights, the permittee must comply with AS 38.05.130.
6. The Commissioner of the Department of Natural Resources (DNR) may require that an authorized state representative be present during any oil and gas activities described in or conducted under this approval.
7. The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any state-owned historic, prehistoric (paleontological) or archaeological site without a permit from the commissioner. All state permits require consultation with the State Historic Preservation Office (SHPO) (907-269-8722) so that consultation per section 106 of the National Historic Preservation Act may proceed. Should any sites be discovered during the course of field operations, activities that may damage the site will cease and the Office of History and Archaeology in the Division of Parks and Outdoor Recreation (907-269-8721) shall be notified immediately.

8. The permittee shall make available, to the Division, all records relating to the survey operations and landowner approvals upon request.
9. The permittee shall make available a copy of the seismic plan of operations, all subsequent amendments, and a copy of this approval and all its attachments to any interested party upon request and in a reasonable time.
10. The permittee shall apply the International Association of Geophysical Contractors Setback Guidelines to activity approved under this authorization. Alternative setback distances may be employed to protect coastal uses and resources, water wells, structures, private property including livestock, and other resources if it is determined that a particular guideline is insufficient.
11. Fuel and hazardous substances. Secondary containment shall be provided for fuel or hazardous substances, as defined under AS 46.03.826 (5) or under 42 U.S.C. 9601(14)F.
 - a. Fuel or hazardous substance transfers. Secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers. Appropriate spill response equipment to respond to a spill of up to five gallons must be on hand during any transfer or handling of fuel or hazardous substances. Transfer operations shall be attended by trained personnel at all times.
 - b. Fuel or hazardous substances container(s) with a total combined capacity larger than 55 gallons shall not be stored within 100 feet of a waterbody.
12. Stationary fuel storage facilities must not be placed within the annual floodplain of a watercourse or closer than 100 ft. to a waterbody. There shall be no fueling, servicing or repair of vehicles or equipment, and no vehicles shall be left unattended within the floodplain or below the ordinary high water (OHW) line of any river, lake or stream or closer than 100 ft. to a waterbody or wetland.
13. All activities shall be conducted in a manner to minimize or avoid disturbance to wildlife and their habitat. Hazing of wildlife is prohibited unless a Health Safety and Environment concern is present.
14. All wastewater must be disposed of in a manner acceptable to Department of Environmental Conservation (DEC) and drinking water must meet Alaska drinking water standards.
15. The Director of the Division has the right at any time to amend or modify any provisions of this permit, or revoke this permit.

16. As a condition of the issuance of this Geophysical Exploration Permit, the permittee acknowledges the requirements of 11 AAC 96.210 (1) and agrees to notify the Director of the Division and submit seismic exploration data. The Geophysical Data Submission Requirements can be found on the DNR Division's website <http://dog.dnr.alaska.gov/Permitting/PermittingForms.htm>. Your signature acknowledges your obligation to fulfill the Data Submittal requirements.
17. The permittee must complete and return a Geophysical Activity Completion Report form for each set of 3D data acquired. Please submit a separate form for each sub-program data submittal. A non-confidential public completion report will be placed into the permit file each time a sub-program is completed. Completion reports must be submitted to our office by February 29, 2016. For in depth instruction on how to complete the form please refer to the Division's permitting website <http://dog.dnr.alaska.gov/Permitting/PermittingForms.htm>.
18. To the extent required as a condition of an approval for any Miscellaneous Land Use Permit (MLUP) for Seismic or Geophysical work, an Incident Report must be filed with the Division for incidents such as spills, land use conflicts, tundra damage, blowouts, and undetonated charges. The form is located at the following web address <http://dog.dnr.alaska.gov/Permitting/PermittingForms.htm>. Please fill out the form and email it to dog.permitting@alaska.gov.
19. A summary record of all surface impacts, lost equipment, spills, fires, and unintended explosions, shall be included in the completion report. Rehabilitation, if required, shall be completed to the satisfaction of the DNR.
20. The permittee shall be responsible for all equipment used in association with the seismic survey. Equipment lost or abandoned during operations shall be recovered and reported. If the lost equipment is not recovered, the report will include a detailed explanation of the circumstances of the loss and the recovery effort that includes Global Positioning System (GPS) location coordinates.
21. The Division's Permitting Section shall be notified in Anchorage by telephone at 907-269-8800 and by email at dog.permitting@alaska.gov if, during the conduct of operations, state resources are damaged or a conflict occurs.
22. All fires and explosions that require a response to protect life and property must be reported to DNR and DEC immediately and shall be supplied with all follow-up incident reports.
23. The permittee shall comply with the DEC requirements for reporting the unauthorized discharge, leak, or spill of hydrocarbons or toxic or hazardous substances. The permittee shall notify DNR of all spills as required under 18 AAC 75.300. The DNR 24 hour spill report number is 907-451-2678; the fax number is 907-451-2751.

Geophysical and Seismic activities proposed by SAExploration, Inc. for the Upper Cook Inlet 3D Seismic Survey are subject to the following project specific stipulations:

24. All marine operations will be conducted in accordance with any voluntary action submitted by the permittee and approved by the National Marine Fisheries Service (NMFS). The Incidental Harassment Authorization (IHA) application describes specific operational procedures, mitigation measures, observer protocols, and other measures designed to protect marine mammals from potential impacts of marine seismic operations. All operations authorized under this permit are required to meet other state and federal requirements, such as the Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), and other applicable laws protecting marine mammals.
25. The permittee shall notify the Alaska Department of Fish and Game (ADFG) Upper Cook Inlet (UCI) ADFG commercial and sport fisheries managers prior to May 1, 2014 to avoid interference with commercial and sport fishing operations in the survey area. In addition, the permittee should contact the ADFG Divisions of Habitat and Wildlife Conservation in the event that Protected Species Observers stationed onboard the vessels witness any negative impacts from air gun blasts on marine mammals, waterfowl, Pacific salmon, or groundfish.

Commercial Fisheries: pat.shields@alaska.gov, 907-260-2941

Sport Fisheries: samuel.ivey@alaska.gov, 907-746-6300

Habitat: jesse.coleman@alaska.gov, 907 247-2812

Wildlife Conservation: dan.rosenberg@alaska.gov, 907-267-2453

I acknowledge, and agree to these Permit terms, conditions and stipulations.


Authorized Representative

4-1-14

Date