
Plan of Cooperation Colville River Delta 3D

SAExploration, Inc.
Anchorage, Alaska July 2014



Contents

1.0	INTRODUCTION	2
2.0	PROJECT DESCRIPTION	2
2.1	Area of Activity.....	3
3.0	REGULATORY REQUIREMENTS	4
4.0	COMMUNICATION SYSTEM (COM CENTER)	4
5.0	PLAN	4
5.1	Stage One	4
5.2	Stage Two	5
5.3	Stage Three.....	6
6.0	EMPLOYMENT OPPORTUNITIES	6
7.0	CONTACTS	6
APPENDIX A		8
	POC Comments and Meeting Notes	8
	Nuiqsut	9
	KSOP/NUIQSUT Seal Hunters Meeting	12
	Kaktovik Community Meeting	17

SAExploration	Colville River 3D Project Plan of Cooperation	Page 1 of 17
July 2014		Rev 4
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1.0 INTRODUCTION

SAExploration, Inc. (SAE) along with its joint venture partner, the Kuukpik Corporation, will communicate with village groups and work in cooperation concerning areas where subsistence stakeholders are present.

This Plan of Cooperation (POC) will be used by SAE to avoid and or minimize conflicts with subsistence activities by open communications and interaction with the members of affected communities. SAE believes that the understanding of issues important to the communities in which we operate are vital to solid community relations. SAExploration will do its best to accommodate the different cultures, lifestyles, heritage and preferences in these communities.

This plan contains three stages:

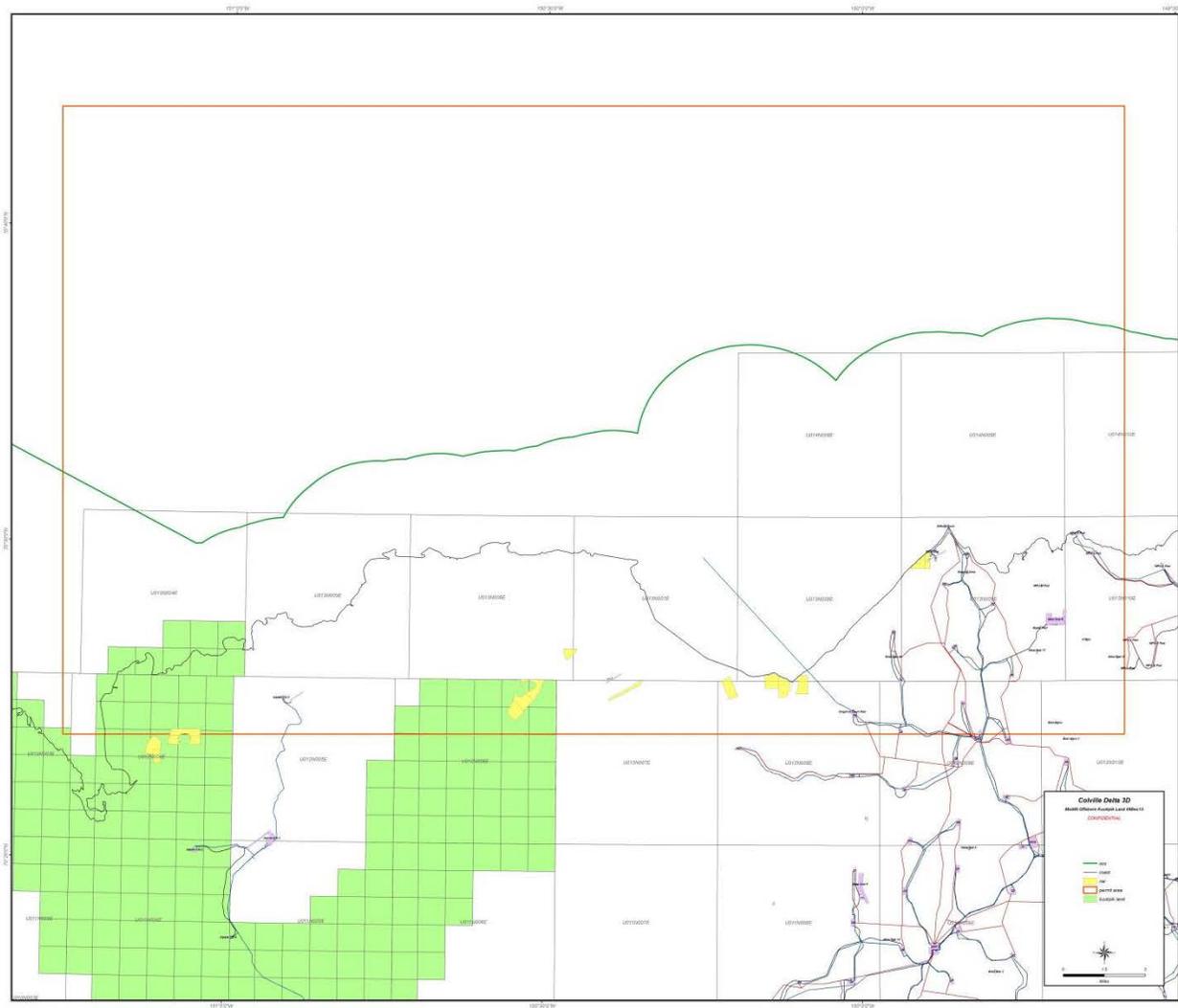
- Stage one describes initial steps to establish communication and understand subsistence timing prior to the program.
- Stage two describes how communication will happen during the program. This communication will keep SAE up to date regarding the timing and status of subsistence hunts and our liaison with the communities.
- Stage three describes what to do in the event that activities may affect subsistence activities and how to communicate with subsistence user groups.

2.0 PROJECT DESCRIPTION

The purpose of the proposed survey is to replace and augment existing datasets by providing better quality, higher resolution seismic data by using autonomous nodal seismic recording equipment. The project is to conduct a three dimensional (3D) ocean bottom seismic survey in the Colville River Delta area of the Alaskan Beaufort Sea during the 2014 Beaufort Sea open water season. The program will be conducted over a period of approximately 60 days within the time period of July 1 to October 15, 2014. This time period includes all activities; mobilization, land and marine layout activities, marine data acquisition and demobilization of equipment and crews. Project operations will include state and federal shallow waters and land transition zone (TZ)

SAExploration	Colville River 3D Project Plan of Cooperation	Page 2 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

2.1 Area of Activity



3.0 REGULATORY REQUIREMENTS

SAE and its contractors shall comply with all applicable federal, state and local government requirements, including U.S. Coast Guard (USCG) requirements for safety, navigation and notice. Including, “where the proposed activity would take place in or near a traditional Arctic subsistence hunting area and/or may affect the availability of a species or stock of marine mammal for Arctic subsistence uses, the applicant must submit either a plan of cooperation or information that identifies what measures have been taken and/or will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses.” [50 CFR 216.104 (12)]

SAE will also comply and sign the Conflict Avoidance Agreement (CAA) established in cooperation between industry and the Alaska Eskimo Whaling Commission (AEWC).

4.0 COMMUNICATION SYSTEM (COM CENTER)

As part of the 2014 CAA between Industry Participants, the Alaska Eskimo Whaling Commission and Village Whaling Captains’ Associations, the Com Centers will facilitate communication between open-water subsistence hunters and industry vessels to minimize and avoid conflicts between subsistence hunters and industry activities.

As part of the 2014 CAA, SAE will participate as a participant to fund and to support the Beaufort Sea Com Center located in Deadhorse and the Call Center located in Kaktovik.

The Com Center (Deadhorse) will be capable of recording all communications for both Deadhorse and the Kaktovik Call Center and, as such, will remain open throughout both the Nuiqsut and Kaktovik whale hunts. Additionally, and in accordance with the 2014 CAA, telecommunications support will be provided to the Nuiqsut Cross Island whaling crews for the fall 2014 subsistence bowhead whale hunt. The Com and Call Center operators will track the locations and progress of industry activities, whalers, and other subsistence hunters as reported to them and relay information to avoid conflicts among these groups.

5.0 PLAN

5.1 Stage One

To open communications SAE attended and presented the program description to the Alaska Eskimo Whaling Commission (AEWC) during their mini-convention in December, 2013, in Anchorage. SAE also planned to be presenting the project at the open water meeting in March 2014 at the Egan Center in Anchorage. This meeting was cancelled by the agencies this year. Collaboration meetings will be held in March and April 2014 with Kuukpik Corporation leaders. Kuukpik Corporation is our joint venture partners in the project and on the North Slope of Alaska. SAE attended and presented the Peer Review Meetings in Seattle spring of 2014. Permits to all federal, state and local

SAExploration	Colville River 3D Project Plan of Cooperation	Page 4 of 17
July 2014		Rev 4
The controlled version of this “Business Control Document” Printed copies are UNCONTROLLED.		

government agencies have been in the spring of 2014. Ongoing discussions and meeting with these agencies have been occurring in order to meet our operational window in the project area. Our IHA was submitted in October of 2013, and is pending as of July, with an excepted issue date of August 2014.

Prior to offshore activities, SAE will meet and consult with nearby communities, namely the NSB planning department and the Fish and Wildlife division. SAE will also present our project during a community meeting in the villages of Nuiqsut, and Kaktovik to discuss the planned activities. The discussions will include our project description, the Plan of Cooperation, resolution of potential conflicts, and proposed operational window. These meetings will help to identify any subsistence conflicts. These meetings will allow SAE to understand community concerns, and requests for communication or mitigation. Additional communications will continue throughout the project.

Proposed Schedule for Meetings:

Complete	AEWC	December 13, 2013
Complete	Barrow (NSB)	February 27th, 2014
Complete	AEWC	February, 10, 11, 12, 2014
Complete	Nuiqsut	January, 15 th 2014
Complete	Nuqsut (seals)	April 22 nd , 2014
Complete	Peer Review	March 10, 2014
Complete	Kaktovik	May 14th, 2014

5.1.1 Meeting Obligations:

5.1.2. PAM Study

NMFW requested that SAE fund a scientific study in addition to the seismic project to obtain Passive Acoustic Monitoring and delivery the collected data to NMFS.

5.1.3 Seal Study

The NSB requested SAE to fund a haul out study for the seal in Colville River Delta area.

5.1.4 Communication for project locations with KSOP

5.1.5 No Seismic in front of Kaktovik

5.2 Stage Two

SAE will document results of all meetings and incorporate to mitigate concerns into the Plan of Cooperation (POC). There shall be a review of permit stipulations and a permit matrix developed for the crews. The means of communications and contacts list will be developed and implemented into operations. The use of scientific and Inupiat PSOs/Communicators on board the vessels will ensure that appropriate precautions are taken to avoid harassment of marine mammals, including whales, seals, walruses or polar bears. SAE will coordinate the timing and location of operations with the Com-Centers in Deadhorse and Kaktovik to minimize impact to the subsistence activities or the Nuiqsut/Kaktovik Bowhead Whale Hunt.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 5 of 17
July 2014		Rev 4
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- 5.2.1 Established Communications:
 - 5.2.1.1 Sign CAA agreement
 - 5.2.1.2 Daily project reporting location to KSOP
 - 5.2.1.3 Daily Project Reporting location to AEWC
 - 5.2.1.4 Participation in the Com-Center
 - 5.2.1.5 Meeting notes listed in APPENDIX A

5.3 Stage Three

If a conflict does occur with project activities and subsistence hunting, the SAs will immediately contact the project manager and the Com Center. If avoidance is not possible, the project manager will initiate communication with a representative from the impacted subsistence hunter group(s) to resolve the issue and to plan an alternative course of action.

6.0 EMPLOYMENT OPPORTUNITIES

SAE and its contractors work with local villages and Kuukpiik Corporation to identify qualified individuals that are interested in working on our program. Inupiat Resource will be utilized to employ observers. KSOP will also be contacted for help with filling available positions.

7.0 CONTACTS

The following contact information is provided to facilitate communication.

SAExploration

Rick Stolz, Operations Supervisor 907-330-9662
Sue Simonds, Permits and Regulatory Coordinator 907-331-8140
Rick Trupp, General Manager 907-522-4499 (o), 907-280-9442 (m)

Protective Species Observers

Smultea Environmental Sciences

Inupiat PSO/Communicators

Inupiat Resources

Seal Study Communications

Greg Green / Owl Ridge 1-206-331-1596

SAExploration	Colville River 3D Project Plan of Cooperation	Page 6 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

Communication Centers

See CAA

SAExploration	Colville River 3D Project Plan of Cooperation	Page 7 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

APPENDIX A
POC Comments and Meeting Notes

SAExploration	Colville River 3D Project Plan of Cooperation	Page 8 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		



KUUKPIK SAE

Community Meeting Minutes

Nuiqsut

MEETING BEGINS AT 6:40PM ON JANUARY 15TH, 2014
Edward the translator announces Kuukpiik SAE...

Sue Simonds gives presentation

Questions begin from Community...

Coming of off 2P pad, will you be using the rollagon trail?

Answer: We were asked by ConocoPhillips not to use the trail until they were done using it. After that time SAE will take advantage of the trail. We will have to cross the trail at times as it runs through our project.

Who has the contract for the lower box?

Answer: Royale Energy is the client for our prospect in that area

Where is the Fjords on the map?

Answer: Sue shows the larger map and points to area. The Nigliq Fjords project covers this area in the Colville River Delta and out onto the sea ice.

When will it begin?(Nigliq Fjords)

Answer: SAE Response – We will be initiating ice check and ice crossing activities in early February with the camp and crew mobilizing to the prospect area in early March. As a function of our USFW permit, we received results from a FLIR survey and any dens

- a. *have been noted on the prospect maps, although, we will train and give orientation to the crew on where polar habitat is and how to spot a suspected den for both polar and brown bear.*

Will you check for polar bear dens?

Answer: Yes, we have received a permit and polar bear den locations from USFW. Repsol has completed flir flights with USFW. The crew will also receive training from USFW for polar bear awareness.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 9 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

Community: We have had problems in the past with Repsol injuring seals and disturbing seal dens, we want to be sure they are not disturbed. When you're heading to the ice please be aware of seals in Harrison Bay area. They will be giving birth.

Answer: we don't really have any information to address the seal injury but we certainly have lessons learned from all companies. We have been working with our Biologist and NOAA to ensure we have little or no impact on seal dens. We also will have our subsistence representatives on crew to help us navigate the ice. We will be working closely with our client on identification and communication/simops as it relates to the environment and wildlife in the area. Our ice check surveys will determine and be plotted on our maps for vehicle access. Thin ice or potential seal habitat will be avoided, any polar bear dens discovered, appropriate reporting and setbacks will be observed

The community also stated they were worried about thin ice.

Answer: We have a team of ice check personnel. They will go out ahead of the crew and check the ice thickness. This information will be mapped and given to the crew prior to entering the field. Ice check will continue throughout the project.

Tony Cabinboy asked for meeting power point.

Answer: was handed out

What rotation schedule?

Answer: 20-30 days

What jobs are available?

Answer: We have sent information to the job centers in Barrow, The state and NSB, They have distributed it out to the villages. We are also a partner with Kuukpik and are working with their job center to help us locate not only subsistence rep's but also survey helpers, mechanic helpers and recorder helpers. We have brought applications and job descriptions that we would like you to take a look at if you or anyone else is interested.

Sue talks about summer work with vessels.

Community asks if their will be noise? Concerned about Bow Head whales with noise in the water, who monitors it?

Answer: The noise generation will come from our source vessels. SAE has worked with USFW and NOAA as to the effect and levels of seismic effects on marine mammals. SAE is part of the CAA process and participates in the whaling commission meetings. Operations will cease during hunting periods and communications with the subsistence hunters, villages and com centers will help reduce and interference due to noise.

Community asks will source vessels have MMO's? How many?

Answer: Yes, Sae will have MMO on the vessels. We will have them on each source vessel and on each mitigation vessel. For 24 hour coverage

How will you protect Thetis Island? We are hoping their will be minimal activity with the whales and mammals. SAE will need to keep traffic minimal.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 10 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

Answer: We will not be going on the island if at all possible. Lots of coordination will be going on with the com centers and with our Inupiat communicators.

a. *After much discussion about this topic, we thought that moving forward a village (Kuukpik) liaison would be good to have in the village in addition to the com center to let people know where our operations are occurring to avoid conflict.*

b. *Community comment: During project for summer ..we recommend SAE have a subsistence rep. seal hunter on the project and have a community liaison or someone from the community.*

c. *Community: We need to have clear communication regarding the work area, not to disturb seal hunting.*

Community: During project for summer for SPY Island...we recommend SAE have a Rep. seal hunter on the project and have a community liaison or someone from the community

Answer: SAE will employ a community liaison for this purpose.

Community: We need to have clear communication regarding the work area, not to disturb seal hunting.

Answer: We will have more discussion on this subject and work this communication into our plan of operations.

An Elder came to meeting, Edward Nukapigak did some translation. No further questions from the audience.

Door prizes were given out and a few individual conversations occurred. We received two applications from the members attending for subsistence reps.

Actions Taken From Meeting:

1. Join CAA for whaling.
2. Schedule meeting with seal hunters

SAExploration	Colville River 3D Project Plan of Cooperation	Page 11 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		



KUUKPIK SAE

Community Meeting Minutes

KSOP/NUIQSUT Seal Hunters Meeting – April 22nd, 2014

Nuiqsut, Alaska

Planned operations in Colville River Delta ~ August 15, 2014.

Residents in Attendance: **Sam Kunaknana** (KSOP board member and seal hunter), **Dwayne Hopson** (KSOP board member), **Patrick Easterday** (seal hunter), **Archie** (KSOP board member, last name not given), **Elizabeth** (KSOP employee, last name not given)

SAExploration: **Suzan Simonds, Alex Dalton**

Question: I have GPS coordinates for the locations all of the seals I hunt for in the area.

Answer: SAE will be working in either the upper right/northeast corner or the lower left/southeast corner of the permit box (shows the map to meeting attendees).

Dwayne H: Seal hunters share information like GPS coordinates for seal locations with one another and are in communication on VHF radio channel 68 when they go on the water to hunt.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 12 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

Suggested that the best way for SAE to communicate seismic crew activity with seal hunters from the community would be notifying KSOP office of where SAE would be operating and KSOP could coordinate by relaying where seal hunters would be heading for that timeframe.

Answer: SAE want to avoid seals' haul out (resting out of the water) areas.

Dwayne H: What's the purpose of the seismic?

Answer: Exploration for oil and gas.

Sam K: How does SAE comply with rules for working in State & Federal waters or areas where both State and Federally managed waters overlap?

Answer: SAE will have permits in place with both the State and Federal agencies.

Archie: Where will the work take place? In the Prudhoe Bay area?

Answer: Either out above Oliktok Point or above the western area of the Colville River Delta (Omoliktok).

Patrick E: What kind of boats will SAE be using?

Answer: 8 to 9 total vessels, around 90 feet in length. One is named the Peregrine.

Elizabeth: Will SAE have PSO's (Protected Species Observers) / MMO's (Marine Mammal Observers)?

Answer: Yes.

Archie: The bearded seals follow the currents; there are 3 primary currents that run nearby, along the shore. The bearded seals travel these currents as they follow the fish that also travel through them.

Question: Where will the seals be during the month of August?

Archie: Close to the shore.

Elizabeth: I have seen seals in the Colville River during August.

Archie: The seals in the Colville River are spotted seals (dog seals). They swim in the river as they hunt for humpies (pink salmon). There will not be any ice in the waters nearby during August.

Question: Where will the seals come out of the water to rest?

Archie & Dwayne: They rest on the islands and gravel bars in the river and on the beaches of the sea. There is not one certain spot. The spotted seals only go into the ocean when there are large groups of fish for them to hunt. Around the end of April and beginning of May, seals have been seen in front of the Nigliq Channel (towards the ocean/Beaufort Sea).

Sam K: Usually about 12 boats are out seal hunting with one or two men in each boat.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 13 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		

Archie: There are stories about hunters at Pingo Island catching 20, sometimes over 40 seals. The hunters then age the seals under gravel or underneath their houses.

Question: When seal hunter go out on the water, how far away do hunters come from to the Colville River Delta? As far as Kaktovik?

Patrick, Dwayne, Archie: No. But, hunters from Nuiqsut will sometimes go out 40 miles into the sea when the ice breaks up and melts.

Question: How often do hunters go out in pursuit of seals?

Patrick & Dwayne: 3 to 10 boats per day for 8 to 12 hours per day. The amount of hunters in the water depends on the weather conditions, price of fuel, etc. Sometimes there are 7 to 10 boats out and the hunters will communicate via radio if they do not have cell phone service.

Patrick & Archie: Bearded seals come towards the shore around August. They rest on the shores. There are not enough islands in the sea for the seals to use as resting places.

Question: Where will people be hunting for seals during August, September, October and November?

Archie: In August, the daylight hours decrease and seal hunters usually work near the mouth of the river and closer to the shore. People primarily focus on hunting for whales around the month of August as the season comes. September, October, and November are too cold, dark, and the waters are too slushy/icy to continue seal hunting? From September to November, people start to focus on hunting for whale, not seals. At the end of April and the beginning of May (break-up) seal hunters will venture out up to 40 miles off the shore. Over the August to November timeframe, SAE will encounter whaling season and hunters pursuing whales.

Elizabeth: Will SAE be in touch with the Communications Center and whale hunting coordination in Barrow?

Answer: Yes, SAE participates in the whale hunting communication and coordination out of Barrow and Prudhoe Bay.

Elizabeth: Has SAE held other meetings in Nuiqsut? Will SAE hold meetings in other communities?

Answer: SAE held a community meeting in Nuiqsut earlier in 2014. SAE will also hold a community meeting in Kaktovik later in 2014.

SAExploration	Colville River 3D Project Plan of Cooperation	Page 14 of 17
July 2014		Rev 4
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Elizabeth: KSOP could use a better, stronger antenna for their VHF radio so they could communicate with hunters in the area for coordination with other groups' activities. ASRC Energy Services had said they would fix the antennas last year, but they backed out. The communication between Nuiqsut and Barrow can be pretty poor and inadequate.

Actions Taken From Meetings:

- 1. Consult with KSOP to avoid seal hunters**

SAExploration	Colville River 3D Project Plan of Cooperation	Page 15 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		



KUUKPIK SAE

COMMUNITY MEETING / KAKTOVIK

Kaktovik Alaska
Colville River Delta project presentation:

Approximately 57 people in attendance:
Presented by Sue Simonds SAExploration.

During and after the presentation, the community asked questions concerning the project.

QUESTIONS:

1. What's the radius of sound effects
 - a. Approximately 5 miles

2. How fast is the Colville River depositing sediment?
 - a. Do not know but will find out for you

3. What's this project cost?
 - a. I don't know specifically

4. What's this project for?
 - a. Mapping the subsurface with in the project outline so that we can take a look to see where this is Oil and Gas

5. Where are the MMO's coming from?
 - a. Coming from Nuiqsut and Barrow and we want to encourage anybody here to fill out an application because we like to have locals on the project. We have contacted the state of Alaska employment center and ASRC with job descriptions. Please see me after the meeting if you would like more information.

6. Hopes that they will not work in this area because it drives the whales away. Says we do not know how it affects the whales and marine population
 - a. We are using new acoustic monitoring that will help us detect the sound effects on the whales if there are whales in the area the system should pick up the noise and we will

SAExploration	Colville River 3D Project Plan of Cooperation	Page 16 of 17
July 2014		Rev 4

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turn over the information to NMFS for study purposes. We will also use PSO's to spot any whales in the area and will stop sound sources during their presence.

7. What are the dates of the project?

- a. We are planning August 15th through October 31st
When whales are in the area we will not be working in the migration area during the migration
***Concerned about all mammals and other fish species

8. How do the nodes affect the sediment on the bottom sea floor?

- a. They drop straight down to the bottom and remain fixed until we pull them

9. Has there been any exploration on the slope?

- a. Yes Beaufort Sea, Chukchi Sea and many other places.... Simpson Lagoon

10. How long has your company been doing this?

- a. 3 years as a company, but most of management has been doing this type of work for over 30 years

SAExploration	Colville River 3D Project Plan of Cooperation	Page 17 of 17
July 2014		Rev 4
The controlled version of this "Business Control Document" Printed copies are UNCONTROLLED.		