Keystone Project Meeting: NDEQ, National Park Service.

Date: February 14, 2006 (3 PM – 4PM)

Keystone Attendees: M. Schmaltz, S. Ellis, A. Prenda

Agencies:

Mike Fritz, Natural Heritage Program
Carey Grell, Nebraska Game and Parks (Environmental Analyst)
Hugh Stirts, NDEQ
Donna Luckner, NDEQ, NPDES Permits
Clark Smith, NDEQ, Supervisor Air Quality Permitting
Dick Ehrman NRD/DEQ Liaison, Nebraska Association of Resource Districts
Nick Chevance, National Park Service.

Introduction

- Schmaltz: Background on TransCanada and the project, TransCanada environmental philosophy and commitments.

- Ellis: Status of NEPA process (State Dept. is lead agency, Project recently met with the State Dept.; EA vs. EIS decision to be made soon; future federal agency coordination at the Washington DC level; Keystone represents a unique project for the State Dept because of large size, and no other major federal land management agency involved; schedule discussion with November 07 as the target date to obtain all permits).

NEPA discussion:

Stirts wanted to know why the State Dept. wouldn't prepare a programmatic EIS, and then the states ?? would do site specific analysis. Ellis – Not enough time to do such a process, and no logical step-down federal agency to implement site specific analysis.

Air quality – emissions, fugitive dust (Smith).

- No combustion emissions at pump stations, no storage tanks, no back up pump power source.
- NE in attainment for PM 10– no issues with construction equipment emissions or dust (no permit needed). Technically, fugitive dust emissions can't leave the property on which they are generated – not enforced. NE AQ has BMPs for dust control – can obtain by asking.

Water Resources (Luckner)

- Hydrostatic Test Water Discharge/Trench dewatering . General permits, less than a month for approval. Take a look at discharge standards. May require testing for certain parameters- residual chlorine, suspended solids, hydrocarbons.
- Stormwater – Construction. General Permit – 7 days prior to construction. Inspection requirements. Stormwater- Industrial permit (pump stations). Will need a Stormwater Pollution Prevention Plan. Certification of no effect on listed species.
- Pre-existing soil contamination. DEQ wants to understand how TransCanada plans to address pre-existing contamination in the trench. DEQ maintains records of known contaminated sites – petroleum (mostly underground tanks). Contact ? McBryde – DEQ Manager of Records.
- Water Supply – General discussion of potential water sources. In eastern Nebraska, it would be possible to get a temporary well approved. Permit application to DEQ stating gpm requested. May have to coordinate with affected Natural Resource Districts.
- 401 Water Quality Certification. State agencies (DEQ, NGFD) only review individual permit applications – nationwides covered by blanket agreement with COE.

Wildlife/Wetlands (Fritz, Carey)

- Wetland/ Prairie Protection Programs. Wetland reserve program - Potential for easements to be crossed throughout the length of the pipeline corridor in NE. Waterfowl production areas – low potential for encountering. Most likely in Jefferson and Saline Counties. Permanent easements will be filed with title; term easements not likely to be filed. There will be both FWS and NGPD leases – all were established with federal funds. NGPD has CRP lands in GIS – ENSR GIS staff to check. NGPD also holds some native prairie easements – If these are crossed, there may be easement conditions to revegetate with native species from local seed sources. NGPD is responsible for easements across the lands they administer; school board lands are handled separately by State Lands.
- Sensitive Species/habitats. Potential for bald eagle nests, Topeka shiner (unlikely, but may require checking); Jefferson County – Massagua rattlesnake associated with remant tall grass prairie – will recommend surveys.
- NHP/NGPD response to ENSR data request. State will provide an overall letter that address general wildlife and habitats, and sensitive species. Should see letter in the next week – verify.

National Park Service (Chevance)

- Chevance stated that he had learned of a meeting between NPS superintendent and the TransCanada project letter this month. Comments offered here will likely be provided again at the NPS meeting.

- By legislation, NPS can't authorize a pipeline across NPS lands. However, the NPS owns virtually no land along this segment of the Missouri – they administer the Wild and Scenic designation. For external projects, all Wild and Scenic river categories are the same (recreational category is treated the same as Wild and Scenic).

- Crossing approach. NPS recommends an HDD that would avoid the bed and banks of the Missouri River. "Bank" is defined as the highwater mark. Further efforts may be needed to define the highwater mark (the proposed crossing is downstream of a major dam at Yankton, and there the active floodplain is now much smaller than before the dam was built). NPS thinks they may not have jurisdiction over the crossing if the bed and bank avoidance citeria are met. Need to check with COE re buried crossings. NPS concerned about activities that involve excavation on the "bank", i.e. geotechnical borings to determine HDD feasibility.

Action Items:

- ENSR obtain list of known contamination sites that proposed pipeline ROW might intercept from DEQ Manager of Records.
- Trow/UEI - Insure we have a plan to address unanticipated trench soil contamination.
- ENSR obtain CRP land GIS shape file from NGPD.
- ENSR check on status of NGPD data response letter.

Keystone Project Meeting: Corps of Engineers, USFWS, Nebraska Dept. of Roads Lincoln, NE.

Date: February 15, 2006 (9 AM-11 AM)

Keystone Attendees: M. Schmaltz, S. Ellis, A. Prenda

Agency Attendees:

USFWS

John Cochnar, Assistant Field Supevisor, Grand Island Field Office
Brooke Stansberry, USFWS biologist, Liaison with NE Dept. of Roads

COE

Keith Tillotson, Project Manager

N Dept. of Roads

Art Yonkey, Planning and Project Development

Gary Prey, District 1 Permit Officer
Mark Otteman, Utilities Engineer
Sandy Wojtasek, Utilities Coordinator
Gary Britton, Assistant ROW manager.
Frank Blankenal, Property Management

Introduction

- Schmaltz: Background on TransCanada and the project, TransCanada environmental philosophy and commitments. .

- Ellis: Status of NEPA process (State Dept. is lead agency, Project recently met with the State Dept., EA vs. EIS decision to be made soon, future federal agency coordination at the Washington DC level; Keystone represents a unique project for the State Dept because of large size, and no other major federal land management agency involved; schedule discussion with November 07 as the target date to obtain all permits).

USFWS (Cochnar)

- Consultation Process. In response to the NEPA discussion, Gary stated that FWS didn't want to go through a species list/data request twice, per the FERC process for REX (Once for the FERC resource reports, then again when the EIS contractor comes on board). Ellis – we will try to avoid a second round of data requests by making this one adequate for the EIS process. FWS has decided that Grand Island Office will be the central point of contact for all input from the affected FWS Regions and offices. The letter will address migratory bird issues (easements, waterfowl production areas) as well as the species to be addressed in the consultation.

- Species. Primarily river dependent species: least tern, piping plover, pallid sturgeon, bald eagle. Also mentioned Massagua rattlesnake. Cochnar thought we were outside habitat for prairie fringed orchid and burying beetle.

COE

- Primary feedback was that the Omaha District needs to figure out its approach to both NEPA and the 404/10 process. Said he would go back to his Branch Chief to discuss. From remarks, it sounds like the District will want to set consistency standards across the Omaha District for 404 process, but 404 applications by state may be required. Commented that District needs to get its strategy together before Washington tells them what to do. Tillotson will be point of contact for time being. Ellis – we will be getting back shortly to Omaha because we need to discuss the 2006 field program.

- Wetlands Mitigation. Omaha has a SOP for mitigation – can obtain from COE website.

NE Department of Roads

- Expect road crossing permit applications late in process. Project should be aware of State Highway 2006-2011 year plan for highway improvements. Copy of plan provided to ENSR at meeting.

Action Items:

- ENSR provide FWS with 1:24,000 and 1:100,00 sheets for NE.
- ENSR check on status of NGPC data response letter.
- ENSR provide copies of the 2006 – 2011 NE DOT Plan book to Engineering and Lands.
- ENSR monitor the Omaha District (Tillotson) to find out how COE will organize itself for this project.

Keystone Pipeline Project – Interagency Meeting on the Proposed Horizontal Directional Drill of the Missouri River at Yankton, South Dakota.

Date: May 19, 2006 10:00 AM to 12:30 PM

Location: Yankton Chamber of Commerce Visitors Center (Paddle Wheel Park).

Participants:

Paul Hedren, National Park Service, P.O. Box 591, O'Neill, NE, paul_hedren@nps.gov

Wayne Werkmeister, National Park Service, P.O. Box 591, O'Neill, NE wayne_werkmeister@nps.gov

Lee Dickinson, National Park Service, 1849 C St. NW, Washington, DC 20240 lee_dickinson@nps.gov

Tyler Cole, National Park Service, P.O. Box 591, O'Neill, NE tyler_cole@nps.gov

Tim Cowman, Natural Resources Adminstrator, South Dakota Department of Environment and Natural Resources -Geological Survey, 414 Clark St. USD Science Center, Vermillion, SD, 57069.. tcowman@usd.edu 605-677-6151, 605-677-5895 fax.

Jim Heisinger, Sierra Club, Chair-Living River Group, Missouri River Basin Task Force Chair jheising@usd.edu 605-624-3170

Mike Koski, Keystone Project, U.S. Project Manager Trow Engineering, 1300 Metropolitan Blvd, Suite 200. Tallahasseee, Florida 32308 mike.koski@trow.com

Scott Ellis U.S. Regulatory Manager. ENSR, 1601 Prospect Parkway, Fort Collins, CO 80525 sellis@ensr.aecom.com 970-493-8878.

1. Introductions

2. Project Overview (Mike Koski)

   Project consists of a 30-inch and 24-inch pipeline that connects the oil sands region of northern Alberta with oil refining centers in the United States. Conoco-Phillips has indicated a firm interest in shipping crude on the pipeline.. The project in Canada includes new pipeline, but primarily an existing natural gas pipeline between Alberta and Manitoba that would be converted to crude service. Orientation of the pipeline is north-south in the states of North and South Dakota and Nebraska. In southern Nebraska, the pipeline would split into two legs: one leg would traverse eastward parallel to the existing Platte Pipeline to Wood River Illinois, and from Wood River to an interconnection with existing pipelines at Patoka, Ilinois. A second proposed

leg would extend from the Nebraska/Kansas border southward to Cushing, Oklahoma, a major crude oil storage and pipeline transportation hub. A firm commitment to construct the Cushing Extension would depend on the results of an open season for subscribers scheduled for fall 2006.

At a regional scale, the proposed Missouri River crossing is largely dictated by the Project's intention to supply crude oil to both Wood River, Illinois and Cushing, Oklahoma,(ie. a crossing of the Missouri River at Yankton would represent the shortest distance between the Canadian border and Cushing). At a local scale, the crossing at Yankton would be located where two existing pipelines are already installed; the proposed crossing would be located in a stable section of the river (downstream of the Gavin's Point Dam, highway bridges, and the Yankton municipal sewage treatment plant); and the crossing would be located in an area with minimal topographic and riparian vegetation constraints.

The lead U.S. federal agency is the State Department (DOS) because the State Department is responsible for issuing a Presidential Permit for the pipeline border crossing. Keystone met with the DOS and other federal agency representatives in Washington DC on March 16, 2006 to discuss the EIS process and federal agency involvement (Lee Dickinson represented the NPS at this meeting). Keystone filed a Presidential Permit application and Environmental Report to the DOS on April 19, 2006. The Environmental Report includes currently available environmental information and a preliminary construction, mitigation, and reclamation plan that includes typical best management practices. The DOS will prepare an EIS (likely with the assistance from another federal agency or a third-party contractor).

Keystone's proposed schedule is to receive federal and state permits and approvals by November 2007; pipeline and pump station construction during 2008 and 2009, with crude oil delivery service beginning in the 4th quarter of 2009. The Keystone Project has met with representatives of the US Fish and Wildlife Service (John Cochnar in the Grand Island, Nebraska Office is the point of contact), and the Corps of Engineers (Steve Naylor in Pierre, SD, and Keith Tillotson in Grand Island, NE are the points of contact).

3. River Crossing Methods and Plans

A review of river crossing methods was presented. Two overall methods could potentially be used:1) trenching/dredging the channel to install the pipeline, or 2) a trenchless method consisting of a directional drill, or a straight-line bore (limited to very short-length crossings). Trenching methods would involve backhoes or clamshells excavating channel material, and depositing the spoil material either in the channel, or on shore. For larger crossings, backhoes or clamshells would be mounted on barges. Spoil material would either be deposited in the channel, or placed on shore. Spoil

material would then be used to backfill the trench over the pipeline. Based on comments from the landowner south of the crossing, the existing Kaneb pipeline was installed in a trench excavated in the channel. Spoil was placed in a pile on the south shore of the river (still visible today). The extent to which this pipeline is currently buried, or exposed is unknown. Assuming that underlying geologic conditions are suitable, Keystone proposes to construct this crossing using a horizontal directional drill. The details of this plan are discussed in the next section.

The proposed Keystone directional drill of the Missouri River at Yankton would be approximately 3000 feet in length. The drill entry side would be located on the north shore of the river on Yankton city land (east of Paddlewheel Park) about 500 feet from the river shoreline; the exit side would be located in an agricultural field on the south side. Based on a preliminary review of the underlying geology (based on geologic logs for a bridge constructed upstream adjacent to downtown Yankton), the curve of the directional drill would descend steeply to a depth of 60 to 70 feet below the depth of the river channel, would extend horizontally under the channel, and then would ascend steeply to the exit point, which is set back approximately 1,000 feet from the south shore. The proposed depth under the river was based on the expectation that the drill hole could be cut through bedrock shale, based on an extrapolation of the upstream bedrock depth at the Yankton bridge crossing. One entry drill site would be located on the north side of the river, and one exit drill site would be located on the south side of the river. Each site would be about one acre plus room to lay out pipe strings. The intent is to have the drill site workspaces located outside of the NPS jurisdictional limits associated with the river at the crossing location.

Pipeline installation under the river would consist of the following steps:

1) A pilot hole would be drilled along the proposed curvature under the river. The angle of the drill head would be remotely guided from the drill site. Drilling fluids consisting primarily of water with natural bentonite clay would be used for lubrication, cutting circulation, and physical support for the drill hole. Drill cuttings would be circulated back to the surface and stored in holding tanks. The pilot hole would measure approximately 9 inches in diameter.

2) The initial hole would be enlarged with a reaming bit. The reaming bit would be pulled from the exit side of the crossing toward the entry side Multiple passes with increasingly larger diameter reaming bits would be completed until the hole reached a diameter of 42 to 50 inches.

3) The pipe needed for the entire crossing would be welded together on the south side of the river, and pressure tested prior to installation. The pipeline would then be pulled through the reamed-out hole under the river.

4) The directionally drilled segment of pipe would be connected to mainline pipeline sections on each side of the river. All pipe would be buried to a depth of four feet. Drilling fluids would be disposed at an approved location. Drill sites would be graded and replanted. Block and check valves would be installed on either side the Missouri River outside the floodplain.

3. Additional Studies for the HDD crossing.

To verify the feasibility of the proposed pipeline crossing, Keystone will conduct additional site-specific studies at the proposed crossing locations. These studies will include geotechnical borings to document the underlying geological material; channel scour studies to estimate the potential channel incision as the result of upstream sediment trapped in the reservoir; and potential for lateral channel migration. Based on a preliminary review of the available geotechnical data, the project proposes to drill boreholes near each bank of the Missouri River. While it would be preferable to drill a hole in the center of the river, the permitting process to accomplish this objective may be difficult, given that this reach is occupied by the pallid sturgeon and other sensitive species. The NPS commented that boreholes were recently completed within the channel for the bridge upstream at Yankton. Studies were required for mollusks, and timing restrictions were implemented for threatened and endangered species (least tern, piping plover, and pallid sturgeon).

4. Issues and Concerns

1. Special Use Permit. The Park Service will require a Special Use permit application for the surface/subsurface activities associated with geotechnical drilling. Keystone should submit a letter and drawings that provide details about the drilling program. The letter and drawings should be submitted to the NPS O'Neill Nebraska office. Based on the meeting discussion, it appears that NPS would require about 60 days for review and potential approval of a letter application submitted by Keystone.

2. Geotechnical conditions. Keystone assumed that the HDD would encounter shale bedrock at 50 to 60 feet below the river channel based on upstream boreholes completed for the new bridge at Yankton. Tim Cowman commented that bedrock may be deeper than 50 to 60 feet at the proposed drilling location because geologic investigations indicate that bedrock dips steeply to the east (downstream from Yankton). Mr. Cowman provided the reference for a recent geological map of Yankton County: Geology of Yankton County, SDGS Bulletin 34, Johnson and McCormick, 2005. The report can be downloaded from the SD Geological Survey website: www.sdg.usd.edu. , or can be ordered as a hard copy directly from the Geological Survey

3. Keystone cannot refine the drill design until the geotechnical investigation and bank and channel surveys are completed.

4. Setbacks. NPS would like to see if there are some options for greater setbacks for the directional drilling sites from the river bank to reduce the risk of releases into the river. Keystone will investigate this possibility once the above noted information is known.

5. Mitigation. Mr. Heisinger and Mr. Hedren commented that while it appears that an HDD crossing will greatly reduce potential environmental impacts, and would not be within NPS jurisdiction, there is a desire to obtain project mitigation that would benefit the Missouri River ecological and recreational values that both the NPS and the Sierra Club want to protect. They want ways to develop project mitigation in the context of corporate citizenship, rather than through permit conditions. Mr. Koski responded that TransCanada's philosophy is to become an active and responsible member of the communities where its facilities are located. The extent to which the project can assist with mitigation will depend on all the mitigation issues that the project needs to address throughout the entire pipeline route. TransCanada is open to ongoing discussions with interested communities, and Mr. Koski will advise TransCanada of this matter and suggest that an early dialogue commence.

6. Leak Detection. There was a general discussion about leak detection and emergency response. Mr. Koski provided a summary of the pipeline design factors, operational controls (pressure monitoring and valves), emergency response planning (the project is preparing a detailed emergency response plan), and the USDOT mandated pipeline inspection and maintenance requirements. Information on these topics is contained in the Environmental Report submitted to the Department of State, and further information will be provided in supplemental submittals. It was requested that Keystone review South Dakota Bill 19JJ that addresses the consequences of environmental damage and the need to pay for these damages.

7. Related Projects. It was suggested that the Keystone Project gain an understanding of a major proposed alluvial groundwater pumping program downstream on the Missouri River (Lewis and Clark Pipeline). The purpose of this project is to increase municipal water supplies for Sioux Falls.

8. Pallid Sturgeon. The USFWS and COE are conducting a program to determine if pallid sturgeon will spawn in response to a "spring rise" – a simulation of historic higher flow conditions that no longer occur because of upstream dams. Potential spawning locations were marked with buoys

above the proposed Keystone crossing location when the group walked down to the river.

9. Other agencies. It was requested that Nebraska Game and Parks be provided the meeting notes, and notification of future meetings and other correspondence related to the proposed crossing plan. Point of contact: Carey Grell. Carey.grell@ngpc.ne.gov. Work phone: 402-471-5423.

5. Future Steps

Mike Koski offered to host future interagency meetings as additional engineering and environmental studies are initiated and completed and revised design can be presented. No specific future meeting dates were established.

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Trow

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32308

Telephone: (850) 385-5441
Facsimile: (850) 385-5523

DCN: KMLO1-00249-01-AA-0649-R01

August 17, 2006

Mr. Tyler Cole
National Park Service
114 North 6th Street
O'Neill, Nebraska 68763

Dear Mr. Cole:

RE: Geotechnical Investigation, Proposed Keystone Missouri River Crossing at Yankton, Request for a Special Use Permit

Please find enclosed, a work plan for the completion of a geotechnical investigation at the Missouri River near Yankton SD. The geotechnical investigation is required for the on-going design and permitting work associated with the proposed crossing of the river by the Keystone Pipeline Project. This plan identifies the nature of the investigation and the locations of the proposed boreholes.

Keystone asks that the NPS issue a special use permit for this work in order to allow us to complete our activities as outlined.

Given the time critical nature of the crossing assessment with respect to on-going NPS and agency discussion, Keystone respectfully requests the expeditious review of this request.

If there are any questions with respect to the enclosed information or if additional information is needed, please contact the undersigned at your convenience.

Yours truly,

Trow Engineering Consultants, Inc.

Mike Koski, P. Eng
Vice President
Energy Services

Richard Gale
Branch Manager
Energy Services

Enclosures: KML01-00199-01-AA-0649-R01-060726 Keystone Yankton Geotech NPS rdg Rev 8-9-2006

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KEYSTONE PIPELINE PROJECT

MISSOURI RIVER AT YANKTON
PROPOSED GEOTECHNICAL
BOREHOLES

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Project No: THES0050388E
Issue Date: August 17, 2006

Document Control No.: KML01-00199-01-AA-0649-R01

Table of Contents

1. Background

TransCanada Keystone Pipeline LLC ("Keystone") will construct and operate a crude oil pipeline and related facilities from Hardisty, Alberta, Canada to Patoka, IL. This project will initially have the capacity to deliver approximately 435,000 barrels per day of crude oil from an oil supply hub near Hardisty to existing terminals in Salisbury, Missouri and Wood River and Patoka, Illinois.

In total, the Keystone Pipeline Project will consist of approximately 1,833 miles of pipeline, including about 760 miles in Canada and 1,073 miles within the U.S. The U.S. portion of the pipeline will consist of approximately 1018 miles of 30 inch pipeline between the U.S./Canadian border and Wood River, Illinois, and a 55 mile section of 24 inch pipeline between Wood River and Patoka, Illinois.

The proposed route of the Keystone pipeline crosses the Missouri National Recreational River from within the city limits of Yankton, South Dakota to unincorporated farmland on the southern, Nebraska, side of the river (Fig 1). It is anticipated that horizontal directional drilling (HDD) will be utilized during construction of the crossing.

2. Purpose and Description

In order to assess engineering conditions at the pipeline crossing for the proposed HDD, soil conditions must be fully characterized so that optimal alignment and profile can be determined. Four soil borings are proposed to be advanced to a depth of 100' below grade as part of this characterization process. Upon completion of boring activities, the drill holes will be backfilled with borehole spoil and capped with grout to within two feet of the ground surface. Native material will be used as a backfill for the interval from the ground surface to a depth of two feet and any excess bentonite derived drilling fluids or borehole spoil will be removed from the site. All waste generated by this investigation will be removed from the site

Keystone is requesting a special use permit to allow the completion of the four soil borings at the proposed crossing location as shown in Figure 1. Two of these borings will located near the entrance and exit points of the HDD installation respectively and will not be located within the NPS jurisdictional limits. Two borings will be advanced on each side of the river as close to the water edge as practicable. These boreholes will be within the NPS jurisdictional limits. No boreholes are proposed in-stream.

Keystone is aware of the environmental sensitivity of the crossing location and is committed to minimal environmental impact. Keystone will adhere to a "Spill Prevention and Containment Program" provided in Appendix A. The program will involve preventative measures with respect to the potential for soil loss from disturbed areas and management of fuels and drilling fluids (water and possibly bentonite clay).

All bentonite drilling fluid will be stored off grade (on pallets or on a trailer). If stored in the open, the bentonite and/or polymer drilling fluid will be covered with visqueen or a similar material.

Keystone will control runoff and minimize erosion during construction. The "Sediment Control Measures" described in Appendix B will be implemented as necessary.

At the conclusion of this investigation, the site will be restored to minimize evidence of human impact.

The boring process will require the work of drillers and an engineer/geologist. Keystone will provide a Company Representative for inspection and oversight of the project. The work will require a drill rig and approximately two support vehicles (Figure 2). All boreholes will be installed with a truck mounted drill rig while one support vehicle will be either a water truck or a truck the size of a Ford F-350 pulling a trailer with a water wagon. Water from this tank will lubricate downhole equipment. Bentonite clay may be used to enhance the lubricating capabilities of the water and to keep the borehole open if necessary. Steel casing may also be installed to prevent sloughing, if necessary. Any steel casing used will be removed upon completion of the borehole. Drilling will be discontinued and grout or bentonite seals will be placed in all open borings if the river is approaching flood stage. Borings will not be left unattended for more than 24 hours. Borehole sealing materials and equipment will be on hand at the site before drilling begins.

Water will not be drawn from the Missouri River. An SUV (or equivalent) type vehicle will also be present on site and used for staff transport.

This investigation is expected to take approximately 9 days or less.

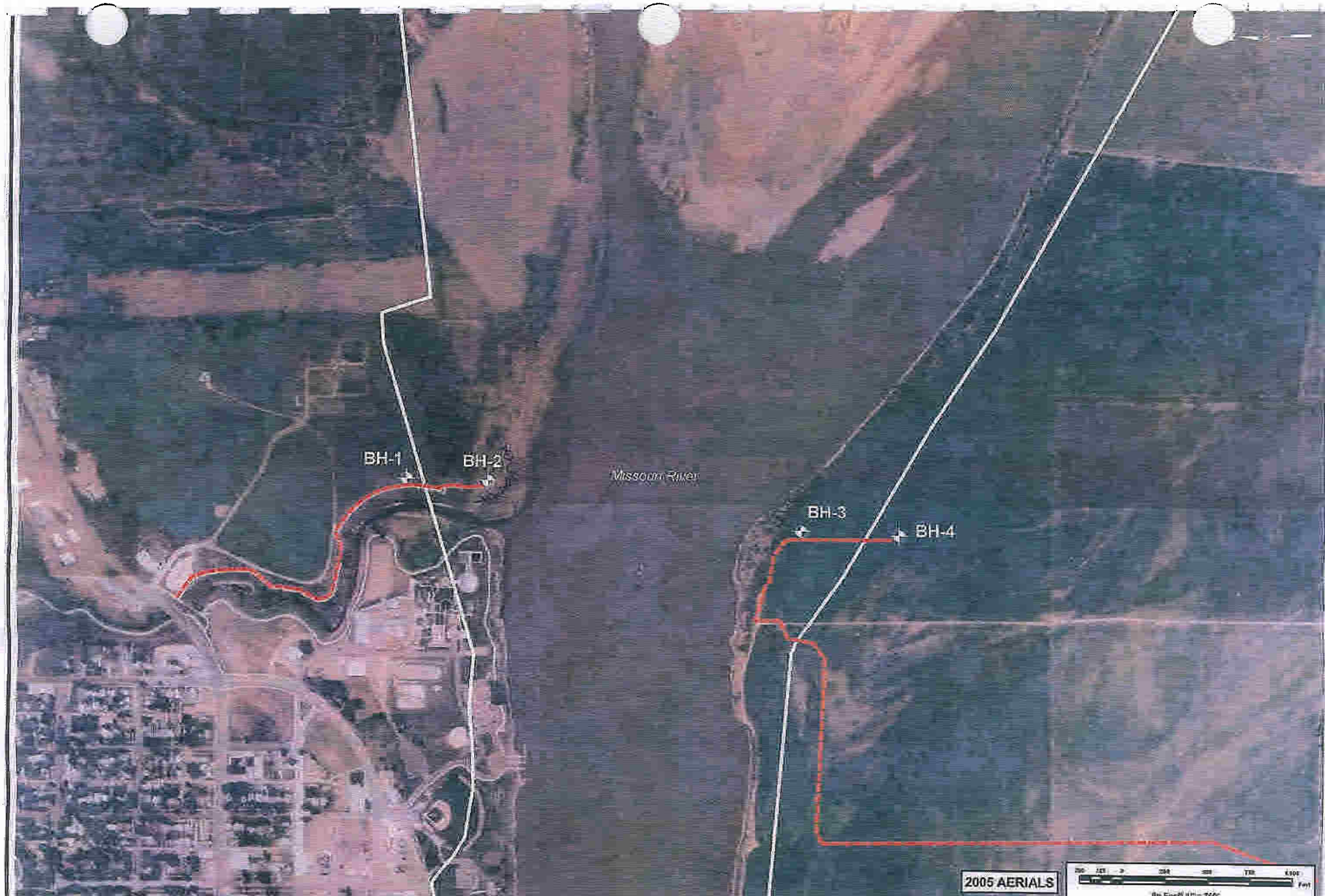
Table 1 Boreholes drilled at Yankton Crossing

ID	Depth	Diameter	Sampling	Casing	Comments
DB-1	100'	up to 6"	Continuous	Steel if needed	Proposed entry point
DB-2	100'	up to 6"	Continuous	Steel if needed	North bank of river
DB-3	100'	up to 6"	Continuous	Steel if needed	South bank of river
DB-4	100'	up to 6"	Continuous	Steel if needed	Proposed exit point

NOTE: As shown in Figure 1, DB-1 and DB-2 are not located within the Missouri MN59BNDP.E.00 jurisdictional limits.

3. Conclusion

The geotechnical investigation proposed by Keystone will allow the project to obtain the data needed to assess the HDD crossing. The data obtained from these borings will be used to prepare an HDD design of the Missouri River for NPS and other agency review. Keystone will work with the NPS to assure that the work is conducted in a safe, efficient and professional manner.



2005 AERIALS

(In Feet) 1" = 750'

BOREHOLE No.	X-COORDINATE	Y-COORDINATE	DEPTH
BH-1	[illegible]	[illegible]	100'
BH-2	[illegible]	[illegible]	100'
BH-3	[illegible]	[illegible]	100'
BH-4	[illegible]	[illegible]	100'

NO.	REVISION	DATE	APPR.
0	ISSUED FOR NPS SPECIAL USE PERMIT	[illegible]	RG

PREPARED BY:
TROW ENGINEERING CONSULTANTS INC.
[illegible]
Tallahassee, Florida, USA [illegible]
Phone: [illegible]
Fax: [illegible]

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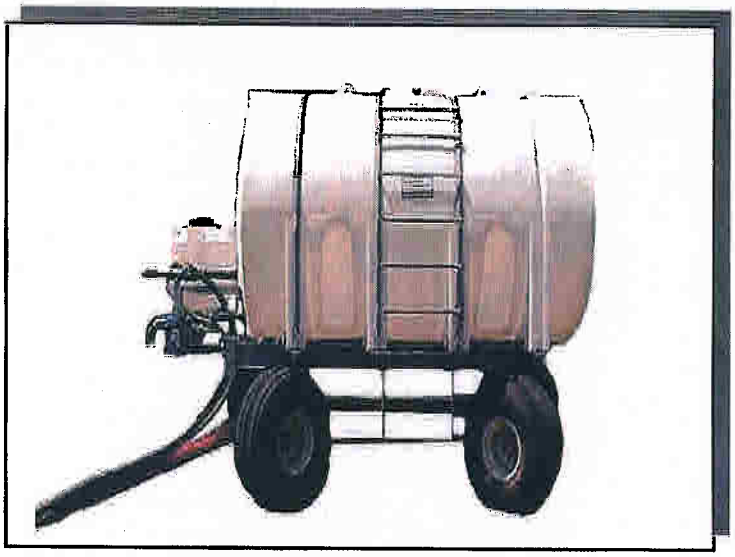
FIGURE 1
PROPOSED GEOTECHNICAL
BORING LOCATIONS

SCALE	DATE	DRAWN	CHECKED	APPROVED	PROJECT	DRAWING NUMBER	[illegible]	REVISION
1"=750'	[illegible]	AH	JTG	RG	[illegible]	[illegible]	[illegible]	0

Figure 2

Typical Drilling Rig



Water Wagon

Appendix A

SPILL PREVENTION AND CONTAINMENT

Spill prevention and containment applies to the use and management of hazardous materials on the construction right-of-way and all ancillary areas during construction. This includes the refueling or servicing of all equipment with diesel fuel, gasoline, lubricating oils, grease, hydraulic and other fluids during normal upland applications and special applications within 100 feet of perennial streams or wetlands.

1.1 Drillsite Activities and Spill Prevention

- All vehicles will be refueled offsite
- Contractors shall routinely keep all tanks under close surveillance
- Potential leaks or spills shall be quickly detected;
- Visible fuel, lubricant or other leaks shall be reported to the Contractors' designated representative and corrected as soon as conditions warrant. Keystone's designated representative shall also be informed.

Keystone may allow modification of the above specifications as necessary to accommodate specific situations or procedures. Any modifications must comply with all applicable regulations and permits.

1.2 Equipment

The Contractor shall retain emergency response equipment that shall be available at all areas where hazardous materials are handled or stored. This equipment shall be readily available to respond to a hazardous material emergency. Such equipment shall include, but not be limited to, the following:

- first aid kit/supplies
- phone or communications radio
- protective clothing (tyvek suit, gloves, goggles, boots)
- hand held fire equipment
- absorbent material and storage containers
- non-sparking bung wrench and shovel
- brooms and dust pan

Hazardous material emergency equipment shall be carried in all mechanic and supervisor vehicles. This equipment shall include, at a minimum:

- first aid kit/supplies
- phone or communications radio
- 2 sets of protective clothing (tyvek suit, gloves, goggles, boots)
- 1 non-sparking shovel
- 6 plastic garbage bags (20 gallon)
- 10 absorbent socks and spill pads
- hand held fire extinguisher
- barrier tape
- 2 orange reflector cones

The Contractor shall inspect emergency equipment weekly, and service and maintain equipment regularly. Records shall be kept of all inspections and services.

1.3 Emergency Notification

Emergency notification procedures between the Contractor and Keystone shall be established in the preplanning stages of the work, and the Keystone representative shall be identified to serve as contact in the event of a: spill during drilling activities. In the event of a spill which meets government reporting criteria, the Contractor shall notify the Keystone representative immediately who, in turn, shall notify the appropriate regulatory agencies. If a spill occurs into navigable waters of the United States, Keystone shall notify

the National Response Center (NRC) at 1.800-424-8802. For spills which occur on public lands, into surface waters or into sensitive areas the appropriate governmental agency's district office shall also be notified.

1.4 Spill Containment and Countermeasures

In the event of a spill of hazardous material, Contractor personnel shall:

- notify the appointed Keystone representative;
- identify the product hazards related to the spilled material and implement appropriate safety procedures, based on the nature of the hazard;
- control danger to the public and personnel at the site;
- implement spill contingency plans and mobilize appropriate resources and manpower;
- isolate or shutdown the source of the spill;
- limit spill travel;
- initiate containment procedures to limit the spill to as small an area as possible, to prevent damage to property or areas of environment concern (e.g., watercourses);
- commence recovery of the spill and clean-up operations.

When notified of a spill, the Keystone representative shall immediately ensure that:

- action is taken to control danger to the public and personnel at the site;
- spill contingency plans are implemented and that necessary equipment and manpower is mobilized;
- measures are taken to isolate or shutdown the source of the spill;
- all resources necessary to contain, recover and clean up the spill are available;
- any resources requested by the Contractor from Keystone are provided;
- the appropriate agencies are notified. For spills which occur on public lands, into surface waters or into sensitive areas the appropriate federal or state managing office office shall also be notified and involved in the incident.

On a land spill, berms shall be constructed with available equipment to physically contain the spill. Personnel entry and travel on contaminated soils shall be minimized. Sorbent materials shall be applied or, if necessary, heavily contaminated soils shall be removed to an approved facility. Contaminated sorbent materials and vegetation shall also be disposed of at an approved facility.

On a spill threatening a water body, berms and/or trenches shall be constructed to contain the spill prior to entry into a water body. Deployment of booms, skimmers and sorbent materials shall be necessary if the spill reaches the water.

The spilled product shall be recovered and the contaminated area shall be cleaned up with in consultation with spill response specialists and appropriate government agencies.

Appendix B

Sediment Control Measures

Sediment Control Measures will be implemented to minimize the potential for erosion and soil loss at the drillsite and to facilitate restoration of the work area to antecedcent conditions upon completion of the investigation.

Keystone will employ the following erosion and sediment control measures at the worksite:

- Access to the work area will be limited to one route, if possible
- Sod will be salvaged from the drillsite and, if applicable, stored on location.
- Runoff will be directed around exposed soils, if possible. This may be accomplished through the use of slope management, hay bales and filter fabric fences
- Sediment barriers will be constructed between the drillsite and the water body. These barriers will be made of materials such as silt fence, staked hay, straw bales or sand bags. The barriers will be placed between the disturbed area and the water body. All silt fences and other barrers will be installed at a mmaximum distance of 50 feet from the boring location.
- Temporary sediment barriers will be installed at appropriate locations to prevent siltation in waterbodies or wetlands crossed by or near the drilling work area.
- All sediment barriers will be inspected and maintained on a daily basis.
- Any temporary barriers will be maintained until permanent revegetation measures are successful or the upland areas adjacent to wetlands, waterbodies or roads are stabilized unless otherwise requested by the landowner.
- Upon completion of the work, any separated sod will be returned.