

## SWCA Proposal for Natural and Cultural Resource Services for the Belfield Oil Pipeline

### Introduction and Project Assumptions

Merjent, Inc. (Merjent) requested that SWCA Environmental Consultants (SWCA) provide this scope of work and cost estimate for natural and cultural resource services in support of the proposed 7.2-mile-long Belfield Oil Pipeline (pipeline). The pipeline, proposed by Whiting Oil and Gas Corporation (Whiting), is located in Township (T) 141 North (N), Range (R) 98 West (W) and T140N, R99W in Stark and Billings counties, North Dakota. Based on information provided to SWCA by Merjent, the pipeline will require analysis and permitting under the North Dakota Public Service Commission's (NDPSC) Transmission Facility Siting Act. All necessary permits are to be in place in order for Whiting to begin pipeline construction in September, 2011.

*For this proposal, the following statements are assumed:*

- As the pipeline crosses only private land, it is assumed that no additional state or federal agencies will claim jurisdiction over the project.
- Surveying a 125-foot-wide corridor will provide sufficient work space to construct the proposed pipeline.
- A 1-mile-wide study area, centered on the pipeline centerline, will be required for desktop review.
- The pipeline centerline will be fully and clearly staked in the field; or SWCA will be provided with a final centerline shapefile (including any last minute reroutes) to follow during survey.
- Only standard safety measures will be required for survey. If specialized Personal Protective Equipment or safety trainings are required, the cost of the equipment and/or training time will be negotiated separately.
- SWCA will prepare for and attend any meetings requested by the client; however, costs will be based on the actual time and materials required for the meeting, and will be above and beyond the provided cost.
- Costs for this scope of work, including rates, are quoted for a 3-month period and will require renegotiation if the Notice to Proceed (NTP) for the project extends beyond 3 months.

### Scope of Work

#### Natural Resources

##### Desktop Review

SWCA will conduct a search of the National Wetland Inventory database for wetland signatures within the 1-mile-wide project study area (centered on the pipeline centerline). This task will be completed upon receipt of a final survey alignment, but prior to initiation of field surveys.

### Field Surveys

It is assumed that the project will avoid wetlands to the extent possible and not exceed the threshold for permanent impact requiring a pre-construction notification (PCN) under USACE NWP 12 (1/10 acre). To this end, SWCA environmental specialists will perform a wetland determination of any wetlands or intermittent/perennial waterbodies crossed by the alignment. All wetland determinations will be completed in accordance with methodologies set forth in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0). Specifically, SWCA will investigate the project area for areas possessing two wetland criteria: the presence of hydrophytic vegetation and wetland hydrology. Once located, SWCA ecologists will geospatially reference an area that accurately identifies the perceived boundary of each wetland. SWCA will delineate the ordinary high water mark (OHWM) of any waterbodies within the project area. Wetland determinations will be performed for the entire alignment.

SWCA will also conduct habitat evaluations for sensitive species; map noxious weed assemblages within the project ROW; and conduct a tree/sapling/shrub direct count or estimation survey of the ROW, per the requirements of the NDPSC.

### Reporting

After the field survey, SWCA will produce a single, comprehensive natural resources report that will outline the results of the field survey. The report will include applicable field data, photos, associated maps showing the location of all geospatially referenced features, and management recommendations. SWCA will also provide Merjent shapefiles of all field-identified resources.

#### *For the natural resources scope of work, the following statements are assumed:*

- The survey can be completed in approximately two days by one person. If our ability to conduct fieldwork is impeded by weather; road construction or impassable road conditions; landowner restrictions; or any other factor(s) outside of SWCA's control, additional work or return visits (including reroute surveys) will be negotiated with the Merjent;
- Only wetland determinations will be conducted for the entire 7.2-mile-long alignment. Wetland delineations required by the project will be assessed as an additional cost of \$350.00 per wetland delineated.
- The project will require no USACE involvement or associated consultation. Any USACE involvement will require a reevaluation of the total proposed cost.
- Electronic draft versions of the natural resources report will be provided to Merjent for review.
- The cost assumes two final hard copies and an electronic version of the report will be produced.
- SWCA will adhere to the schedule provided below, with the understanding that the proposed dates are estimates and may fluctuate depending on changes in the project proponent's schedule, availability of essential project information, snow cover, other weather-related issues, etc.

### *Tentative Natural Resources Schedule*

- **April 22, 2011:** SWCA receives NTP from Merjent and contracting is completed.
- **April 25-29, 2011:** SWCA completes natural resource surveys of the alignment (2 days total).
- **May 19, 2011:** SWCA completes a draft of the natural resource report and submits electronic version to Merjent for review.
- **May 23, 2011:** Upon review and approval by Merjent, SWCA finalizes natural resource report and submits final versions (electronic and hard copy) to Merjent for incorporation in the NDPSC Application.

## **Cultural Resources**

### *Class I Literature Review*

A Class I literature review will be conducted by SWCA for the proposed survey corridor and a 1-mile-wide study corridor centered on the pipeline centerline. SWCA will search files (cultural resource site forms and survey manuscripts) housed at the State Historical Society of North Dakota. Boundaries of all previously recorded sites within the study area will be hand-digitized using GIS software prior to initiating fieldwork. SWCA will provide Merjent with copies of the site boundary shapefiles.

### *Field Surveys*

SWCA archaeologists will conduct a 100 percent pedestrian survey of the entire 125-foot-wide pipeline alignment. SWCA archaeologists will survey transects spaced no greater than 30 meters apart. SWCA will revisit and update any previously recorded site located within the survey corridor; all newly identified cultural resources will be fully recorded to the standards set forth by the North Dakota State Historic Preservation Office (SHPO). Sites will be fully delineated when land permissions allow access outside the survey corridor, as this will help inform site avoidance and rerouting.

While it is assumed that avoidance is the preferred site management strategy, limited shovel testing will be conducted in areas with the potential to contain buried cultural deposits, or, as needed, to assist in the evaluation of sites regarding their National Register of Historic Places eligibility. Assessing site eligibility will assist in the differentiation between avoidance and exclusion areas, thus providing necessary information for the NDPSC site suitability evaluation process. The North Dakota SHPO requires 100 percent ground visibility (i.e., no snow coverage) during all Class III cultural resource inventories. Presence of snow on or beyond the proposed start date will push back cultural resources inventories, and, resultantly, the entire project schedule.

### *Reporting*

Upon completion of fieldwork, SWCA archaeologists will compile a single Cultural Resources Report detailing the results of the Class I and Class III inventory that meet the requirements set forth by the SHPO. Site forms will be completed and submitted for any cultural resources recorded during the Class III inventory. A draft cultural resources report will be completed and submitted in digital format to Merjent for review prior to submittal to SHPO. Upon review and approval from Merjent, SWCA will forward one hardcopy of the report onto SHPO for review and concurrence and one hardcopy to Merjent.

*For the cultural resources scope of work, the following statements are assumed:*

- SWCA will survey a 125-foot-wide inventory corridor centered on the proposed 7.2-mile-long pipeline centerline.
- The cost assumes up to two days of field work for two cultural resource specialists. If our ability to conduct fieldwork is impeded by weather; road construction or impassable road conditions; landowner restrictions; or any other factor(s) outside of SWCA's control, additional work or return visits (including reroute surveys) will be negotiated with the Merjent.
- No more than 3 cultural resources (not to exceed 1 acre each) will be recorded. If the number of sites or isolated finds recorded exceeds 3, the cost will be negotiated separately with a per site/isolate cost of \$700.00 each.
- Up to one site will require evaluative shovel testing of no more than 5 tests.
- SWCA will prepare one combined Class I and Class III report.
- The cost assumes two final hard copies and one electronic version of the report will be produced. One final hard copy will be provided to Merjent and one copy will be sent to SHPO.
- SHPO is allotted 30 days to provide comments or concurrence with the results of the cultural resources inventory. Upon receiving concurrence from SHPO, SWCA will forward a copy of the concurrence letter to Merjent for incorporation into the NDPSC Permit Application.
- If artifacts are required to be collected, curation fees will be assessed at that time.
- Tribal consultation is not included in this cost estimate.
- SWCA will adhere to the schedule provided below, with the understanding that the proposed dates are estimates and may fluctuate depending on changes in the project proponent's schedule, availability of essential project information, snow cover, other weather-related issues, etc.

**Tentative Cultural Resources Schedule**

- **April 22, 2011:** SWCA receives NTP from Merjent and contracting is completed.
- **April 25-29, 2011:** SWCA completes cultural resource surveys of the alignment (2 field survey days total).
- **May 13, 2011:** SWCA completes drafts of the Class I and Class III cultural resource report and submits electronic version to Merjent for review.
- **May 16, 2011:** Upon review and approval by Merjent, SWCA submits cultural resource report to SHPO for review.
- **May 17-June 16, 2011:** SWCA receives SHPO concurrence and forwards concurrence letter to Merjent for incorporation in the NDPSC Application. *Note: Although SHPO has 30 days to review the report, in past experience, SHPO has provided concurrence in an abbreviated timeframe.*

## Environmental Services Cost Estimate:

*Natural Resource Services: \$5,990*

*Cultural Resource Services: \$7,995*

***Total Cost: \$13,985***

SWCA proposes to conduct the scope of services provided herein, in consideration of the listed assumptions, on a **Not to Exceed** basis. All services will be provided in accordance with the rate schedule provided herein.

## Rate Schedule

### Hourly Rates

Principal in Charge	\$175.00/hour
Project Manager	\$79.00-100.00/hour
Natural Resources Lead	\$89.00/hour
Principal Investigator/Cultural Resource Lead	\$100.00-131.00/hour
Resource Specialist III	\$79.00/hour
Resource Specialist II	\$68.00/hour
Resource Specialist I	\$58.00/hour
Resource Technician II	\$47.00/hour
GIS/CADD Specialist	\$58.00-79.00/hour
Technical Writer/Editor	\$100.00/hour
Administrative	\$47.00-89.00/hour

### Direct Costs

Personal Vehicle	Accepted IRS Rate
Per Diem	GSA Federal Per Diem Rate
Lodging	Cost
Rental Vehicle and Fuel	Cost
Plotter	\$4.25/square foot
Copies	\$0.10/page
Color Copies	\$1.00/page
File Search Fees	Cost
SHPO Report Filing Fee	\$50.00/report

SWCA charges a communications fee of 3% of total labor. Rates quoted April 2011 are considered applicable for a period not to exceed 3 months from the submission date of this proposal.