

STATE OF NORTH DAKOTA

IN DISTRICT COURT

COUNTY OF BURLEIGH

SOUTH CENTRAL JUDICIAL DISTRICT

Dakota Resource Council, Janie and John)
Capp, Ramona Klein, Linette and Merle)
Kratochvil, and Mark Novak ,)

CIVIL NO. 08-08-C-0814
Agency Case No. PU-06-421

Appellants,)

vs.)

Public Service Commission and)
TransCanada Keystone Pipeline LP,)

**TESTIMONY OF LOYS A. GRAY, III
IN SUPPORT OF KEYSTONE'S
RETURN TO APPELLANTS'
MOTION FOR STAY ON APPEAL OF
THE NORTH DAKOTA PUBLIC
SERVICE COMMISSION
CERTIFICATE**

Appellees.)

LOYS A. GRAY, III, BEING FIRST DULY SWORN, ON OATH, DEPOSES AND STATES, AS FOLLOWS

1. I am the engineering and construction manager of the US portion of the Keystone crude oil pipeline project. I have attached a copy of my resume with my educational background and qualifications.
2. Over the past 30 years I have served in various pipeline engineering and construction management positions including engineering manager, construction manager and project director on a variety of large diameter pipeline projects throughout the United States and in foreign countries. The larger projects range from 200 to 2,500 miles in length with diameters from 30 to 40 inches. Since the mid 1990s, a significant portion of my work has been in pipeline construction management and I am very familiar with pipeline construction contract administration and implications of delays to pipeline construction.
3. I have provided both written and oral testimony to the PSC regarding Keystone's Application for a certificate of corridor compatibility and route permit and regarding the project construction schedule and the assembly line process by which pipelines are constructed. Additionally, testimony was previously provided regarding impacts to delay of the issuance of the ND PSC certificate.
4. The Keystone Pipeline construction is to be performed in two approximate 130-mile construction spreads (contractors) in 2008 (reference Exhibit A – Construction Spread Plan). One spread starts at milepost 0 at the US/Canadian border and works southerly, and the second spread starts at milepost 130 in northern Barnes County and works southerly.

Clearing of the right of way for the pipeline in North Dakota, which is the initial phase of the pipeline construction process, is scheduled to start immediately upon the lifting of the spring thaw road bans (estimated to be mid May).

5. Acquisition of the right-of-way for the pipeline in North Dakota is over 96% complete. Easements have been acquired on a negotiated basis from 341 of the 355 landowners, comprising over 210 miles of the 218 miles the pipeline crosses in North Dakota. While eminent domain proceedings have been commenced against the 14 owners of the unacquired tracts of land, Keystone continues to seek acquisition of easements from these remaining landowners on a negotiated basis.
6. Granting a stay pending the outcome of an appeal will result in the deferral of monies anticipated to be spent in North Dakota communities. Keystone estimates that it will spend approximately \$32.9 million in local North Dakota communities in 2008 during construction of the Keystone project. These expenditures will include food and lodging expenditures during construction, purchase of construction materials and supplies to be sourced locally, and locally hired labor. A delay in the start of construction for a year will defer these economic benefits from coming into these communities for a year.
7. The following pre-construction activities are currently underway. Many of these activities will be interrupted by the granting of a stay:
 - A. Offloading and stockpiling of line pipe;
 - B. Mobilization of construction contractor supervision personnel;
 - C. Offloading of construction equipment and materials;
 - D. Mobilization of construction management, survey and environmental personnel;
 - E. Completion of welding procedures; and
 - F. Notification of landowners and county officials of the imminent start of construction.
8. The following pre-construction activities are scheduled to start before mid May. These activities will be interrupted by the granting of a stay:
 - A. Staking of the pipeline centerline and limits of the construction right of way;
 - B. Counting and documenting of trees to be removed from the right of way;
 - C. Biologist surveys for threatened or endangered species;
 - D. Biologist surveys for migratory bird nests and raptors;
 - E. Biologist surveys for weeds;
 - F. Remaining cultural resource surveys;
 - G. Pre-construction meetings with contractors;
 - H. Contractor yard preparation and set up of construction offices;
 - I. Notifications to landowners and county officials;
 - J. Mobilization of construction workers;
 - K. Health, safety, and environmental training of construction workers; and
 - L. Completion of a pre-construction conference with ND PSC staff scheduled for May 8, 2008 at 9:00 AM

9. A stay pending the outcome of the appeal would result in the following impacts to Keystone's construction program, each of which have cost implications:
 - A. Demobilization and termination of construction management, survey, and environmental personnel;
 - B. Demobilization and termination of contractor personnel;
 - C. Approximately 265 miles of line pipe that has already been purchased and is currently being stock-piled. This line pipe must be stored requiring that ends be covered and the pipe mill coating protected from ultraviolet sunlight (see photos of pipe delivered to pipe stockpile yards, attached as Exhibit B);
 - D. Mainline valves and other materials must be warehoused;
 - E. Pipe yards must be re-leased for another year. Some leases require Keystone to remove the pipe by year end of 2008 and the landowner could require Keystone to move the pipe to another location;
 - F. Certain environmental surveys completed to date will be required to be completed again due to the time sensitive nature of the survey observations;
 - G. Termination of agreements for local housing facilities for worker lodging;
 - H. Termination of agreements with local service suppliers;
 - I. Termination of pipeline contractors' agreements with specialty subcontractors (clearing, road boring, horizontal directional drilling, etc);
 - K. Project management and key engineering, survey, land, and environmental personnel will have to be maintained for continuity until construction starts in 2009; and
 - L. First year landowner crop damages have been compensated to many landowners and cannot be recovered, resulting in the necessity of paying an additional year for crop losses.
10. If a stay is granted, the pre-construction activities already underway and those planned between now and mid May would be cancelled. The near-term cost impacts associated with the above listed items, resulting from a stay of construction are estimated at \$12.7 million. These costs would be incurred as a result of even a short-term delay, regardless of whether the 2008 construction season is lost.
11. Keystone's pipeline construction plan and spread lengths in North Dakota area base upon a full 2008 construction season from mid May to late November (reference Exhibit C attached, which includes construction march charts for Spreads 1 and 2). This complete time window is needed for the construction contractors to complete the scope of work. As discussed in the affidavit of Dean Cowling, the grant of a stay pending the outcome of the appeal will result in loss of the 2008 construction season. This will increase the project costs and will also greatly increase the risk of not completing the project on schedule in 2009.
12. The US pipeline industry is in a period of expansion that is unprecedented in the post-World War II period. The demand for pipeline construction contractors and workers is exceeding supply. Last year, Keystone had to alter its original construction plan due to this demand and shift construction work into 2009 for Spreads 3, 4, and 5. Additionally,

Keystone had to include payment penalties to its pipeline contractors in its construction contracts in the event construction is cancelled in 2008. Granting a stay will cause Keystone to incur cancellation fees for the Spread 1 and 2 pipeline construction contractors. These costs are \$12.5 million if notices to the contractors are given on or before May 1 (reference Exhibit D – note that these costs are not estimated). These costs would increase to \$13.5 million if notice is provided to contractors after May 1, 2008.

13. The lengths of Spreads 1 and 2 were planned based on the ability to construct from mid-May until mechanical completion on November 30, 2008. Line fill with crude oil for startup of the pipeline is planned to begin in Canada on November 1, 2009, and the line fill is estimated to reach the US border on December 15, 2009. With Spreads 1 and 2 completed in 2008, there would be no risk of the pipeline not being complete to receive line fill on December 15, 2009. Line fill would continue from the US border on toward Spread 3. Granting a stay will result in Keystone needing to achieve mechanical completion for Spreads 1 and 2 by October 31, 2009, to ensure mechanical completion and to complete commissioning activities prior to receipt of line fill on December 15, 2009. This cannot be accomplished with just two pipeline construction spreads. To facilitate completion of construction in time to accept line fill, it is my opinion that the two construction spreads will have to be made into three construction spreads. The lengths of these spreads would be shorter, thus, reducing the contractors' volume of work and increasing the cost of the work. The cost impact of conducting North Dakota construction in three spreads in 2009 is estimated to be in a range of \$10 million to \$15 million.
14. Granting a stay that moves pipeline construction in North Dakota into 2009 will significantly increase pipeline construction costs for Spreads 1 and 2. The construction work would have to be re-scheduled and re-contracted for 2009. The 2009 demand for pipeline construction contractors will remain high and the large diameter pipeline construction contractors are already committed under contract to Keystone and other major projects for 2009. Keystone's ability to contract additional pipeline construction resources in 2009 is limited. These limitations will result in higher pricing, assuming the work can be contracted at all. It is my opinion that this delay to 2009 will result in a 10 to 20% increase in costs in order to get contract commitments from pipeline construction contractors for 2009. The impact to pipeline construction costs from recontracting for a delay of Spreads 1 and 2 to 2009 is estimated to be in a range of \$15 to \$30 million.
15. North Dakota has periodically had extremely wet weather, even including flooding in May, June and July in the areas of the proposed Keystone pipeline. Wet weather greatly slows the pace of construction. With line fill scheduled for December 15, 2008, there would be very little margin for other than normal inclement weather. Granting a stay greatly increases the risk of mechanical completion of the pipeline not being achieved for receipt of the line fill as planned, such that Keystone's in service date could not be met, resulting in significant additional cost impacts to the project.
16. Based on the foregoing, it is my professional opinion that grant of a stay will increase the cost of pipeline construction in the range of \$50.2 million to \$71.2 million; the benefits to

**Exhibit A – Construction Spread Plan
Map**

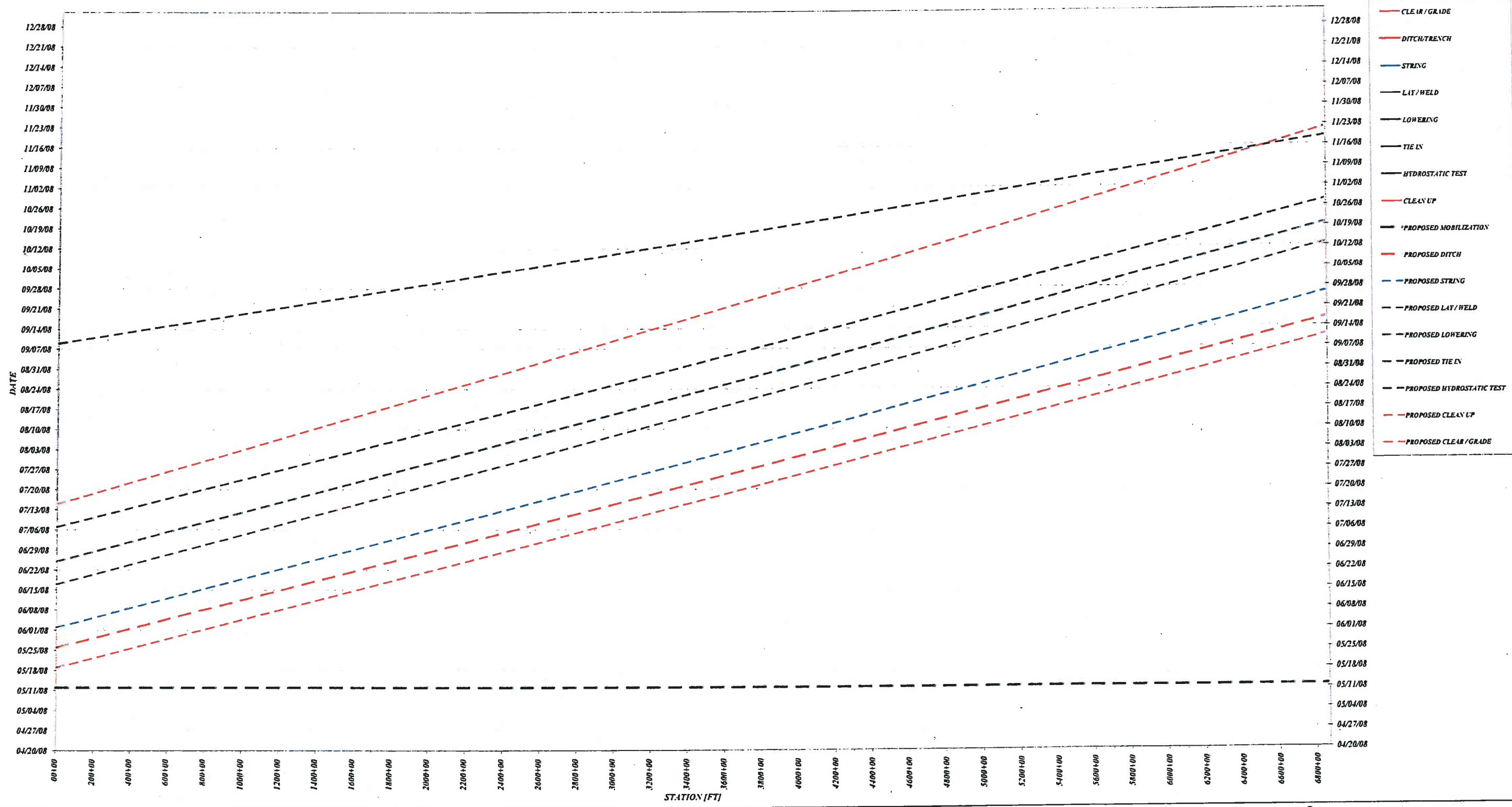
**Exhibit B – Pipe Offloading & Stock
Piling Photos**





**Exhibit C – Spread 1A and 2A
Contractor March Charts**

CONSTRUCTION MARCH CHART AND PROGRESS CHART
 SPREAD 1A
 HENKELS AND McCOY
 Friday, April 11, 2008



CLEAR/GRADE	0%
DITCH/TRENCH	0%
STRING	0%
LAY/WELD	0%
LOWERING	0%
TIE IN	0%
HYDROSTATIC TEST	0%
CLEAN UP	0%

0 25 50 75 100 125 129.9
 MILE POST

**Exhibit D – Spread 1A and 2A
Cancellation Fees**

EXHIBIT "C"
PRICING EXHIBIT
SPREAD 1A

D. OTHER					
51	PERFORMANCE BOND				
	(a) Supply performance bond	Per \$1,000		0.00	

2.0 QUANTITIES

The estimated contract price is based on estimated quantities. There will be no adjustments to the unit prices for variances in the quantities used to develop the total estimated price. Payment shall be for actual quantities of each Schedule of Unit Prices incorporated into the Work. Should additional funds be required to cover cost associated with additional quantities, an amendment will be issued and signed by Company and Contractor.

3.0 ADJUSTMENTS

All prices are fixed for the duration of the Contract and are not subject to escalation. Unit prices will not be adjusted due to variances in quantities.

4.0 INVOICING

Contractor shall invoice on the 1st and 15th of every month; Payment shall be as follows:

- a) A discount of 0.6% will be applied against the invoice amount if payment is made within ten (10) days from receipt of a correct invoice.
- b) A discount of 0.5% will be applied against the invoice amount if payment is made within fifteen (15) days from receipt of a correct invoice.
- c) Should Company elect not to exercise the discount for expedited payment, the payment term is Net 30 days from receipt of a correct invoice.
- d) Payment shall be made via wire transfer.

5.0 CANCELLATION FEES

Pursuant to GC 22.1, the following cancellation fees apply and will be paid by Company to Contractor to release Company from all requirements of this Contract. The following amounts are not intended to be cumulative.

Date	Cancellation Fee
on or before 8/1/2007	100,000.00
on or before 9/1/2007	125,000.00
on or before 10/1/2007	150,000.00
on or before 11/1/2007	500,000.00
on or before 12/1/2007	750,000.00
on or before 1/1/2008	1,500,000.00
on or before 2/1/2008	2,000,000.00
on or before 3/1/2008	3,000,000.00
on or before 4/1/2008	4,000,000.00
on or before 5/1/2008	5,000,000.00
on or before 6/1/2008	5,000,000.00
on or before 7/1/2008	5,000,000.00

6.0 CONTRACT PRICE

The total Contract Price is estimated at \$72,627,083.00. The value may increase due to additional quantities. Should additional funds be required to cover additional quantities, an amendment will be issued and signed by Company and Contractor. Contractor understands and agrees that the total price is an estimate and payment shall be for actual work performed. Company does not guarantee the total amount to be expended under this Contract.

EXHIBIT "C"

NOTES TO CONTRACT No. 5180 SPREAD 2A and 3B

The following notes/clarifications apply to Contract No. 5180:

1.0 QUANTITIES

The estimated price is based on estimated quantities. There will be no adjustments to the unit prices for variances in the quantities used to develop the total contract price. Payment shall be for actual quantities of each Schedule of Unit Prices incorporated into the Work. Should additional funds be required to cover cost associated with additional quantities, an amendment will be issued and signed by Company and Contractor.

2.0 CANCELLATION FEES

Pursuant to GC 22.1, the following cancellation fees apply and will be paid by Company to Contractor to release Company from all requirements of this Contract. The following amounts are not intended to be cumulative.

Date	Cancellation Fee
on or before 8/1/2007	None
on or before 9/1/2007	None
on or before 10/1/2007	2,000,000.00
on or before 11/1/2007	2,000,000.00
on or before 12/1/2007	2,500,000.00
on or before 1/1/2008	3,500,000.00
on or before 2/1/2008	4,500,000.00
on or before 3/1/2008	5,500,000.00
on or before 4/1/2008	6,500,000.00
on or before 5/1/2008	7,500,000.00
on or before 6/1/2008	8,500,000.00
on or before 7/1/2008	9,500,000.00

3.0 INVOICING

Contractor shall invoice on the 1st and 15th of every month. Payment shall be as follows:

- A discount of 0.25% will be applied against the invoice amount if payment is made within ten (10) days from receipt of a correct invoice.
- Should Company elect not to exercise the discount for expedited payment, the payment term is Net 30 days from receipt of a correct invoice.
- Payment shall be made via wire transfer.

4.0 PAY ITEM CLARIFICATIONS

The following are clarifications applicable to the designated Pay Item:

- All unit pricing (Item 2 through 50) will be in addition to the base lay price.
- Pay Item 4 - Unit prices for wetland technique include one (1) layer of mats. Additional layer of mats in a wetland as well as all other mats utilized on the construction right-of way not used for the convenience of the Contractor will be billed per the Unit Price Item 46a. Additional Construction Mats.
- Pay Item 2 - Drawings provided by Company to Contractor to formulate pricing on the launchers, receivers, main line valves and check valve locations lacked considerable detail. Upon receipt and review of "approved for construction drawings", Contractor has the right to request a change on the pricing per Clause 6.7 of the General Conditions. Specifically, pricing for Item 2 does not include site preparation work for the facilities.
- Pay Item 3 - The following apply to the directional drilling pricing: