

# TECHNICAL REVIEWER RATING SUMMARY

**G-008-B**

**G-008-B – Crude Oil Transportation Capacity Study**

Submitted by: Northern Alliance of Independent Producers

Principal Investigator: Robert W. Harms

Request for \$8,000; Total Project Costs \$16,000

| <b>Rating<br/>Category</b>             | <b>Weighting<br/>Factor</b> | <b>Technical Reviewer</b> |              |              | <b>Average<br/>Weighted<br/>Score</b> |
|--|-----------------------------|---------------------------|--------------|--------------|---------------------------------------|
|  |                             | <b>09-04</b>              | <b>09-05</b> | <b>09-06</b> |                                       |
| Objective                              | 9                           | 3                         | 4            | 4            | 33.00                                 |
| Availability                           | 9                           | 4                         | 5            | 3            | 36.00                                 |
| Methodology                            | 7                           | 4                         | 1            | 5            | 23.33                                 |
| Contribution                           | 7                           | 3                         | 4            | 4            | 25.67                                 |
| Awareness                              | 5                           | 3                         | 4            | 4            | 18.33                                 |
| Background                             | 5                           | 2                         | 5            | 3            | 16.67                                 |
| Project Management                     | 2                           | 3                         | 1            | 4            | 5.33                                  |
| Equipment Purchase                     | 2                           | 5                         | 5            | 5            | 10.00                                 |
| Facilities                             | 2                           | 3                         | 5            | 4            | 8.00                                  |
| Budget                                 | 2                           | 5                         | 4            | 5            | 9.33                                  |
| <b>Average Weighted Score</b>          |                             | 35                        | 38           | 41           | <b>185.66</b>                         |
| <b>Maximum Weighted Score</b>          |                             |                           |              |              | <b>250</b>                            |
| <b><u>OVERALL RECOMMENDATION</u></b>   |                             |                           |              |              |                                       |
| <b>FUND</b>                            |                             | <b>X</b>                  | <b>X</b>     | <b>X</b>     |                                       |
| <b><u>FUNDING TO BE CONSIDERED</u></b> |                             |                           |              |              |                                       |
| <b>DO NOT FUND</b>                     |                             |                           |              |              |                                       |

**G-008-0B**  
**“Crude Oil Transportation Capacity Study”**

Submitted by: Northern Alliance of Independent Producers

Request for: \$8,000; Total Project: \$16,000

Section B. Ratings and Comments:

1. *The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Oil and Gas Research Council goals are: 1 – very unclear; 2 – unclear; 3 – clear; 4 – very clear; or 5 – exceptionally clear. Please comment:*

Reviewer 09-04 (Rating: 3)

This problem must be solved in order for North Dakota producers to sell their crude oil without a significant discount. Failure to do so will result in premature abandonment of producing wells and a decrease in drilling activity, which will result in a financial loss to the state and its residents.

Reviewer 09-05 (Rating: 4)

Read in total, the application clearly sets forth the objectives and goals of the project. My preference would have been that one section of the application, probably the section titled “Project Summary” clearly delineate all objectives of the project. For example, the “Project Summary” did not clearly include the objective identified in the “Abstract” and the “Project Description” concerning circumstances that have caused crude oil price differentials. There is certainly value in fleshing out the objectives and goals of the project through the discussion in several sections of the application. Rating 3 for clarity.

The application sections titled “Value to North Dakota” and “Project Description” set forth potential benefits of the project that can easily be correlated to and show consistency with several of the North Dakota Industrial Commission/Oil and Gas Research Council goals. Rating 5 for consistency.

Reviewer 09-06 (Rating: 4)

No comments

2. *With the approach suggested and time and budget available, the objectives are: 1 – not achievable; 2 – possibly achievable; 3 – likely achievable; 4 – most likely achievable; or 5 – certainly achievable. Please comment:*

Reviewer 09-04 (Rating: 4)

It appears that the contractor to be engaged has a significant background in this area and should be able to provide the study in the time stated.

Reviewer 09-05 (Rating: 5)

The background of the subcontractor, Purvin & Gertz, Inc., is closely related to the proposed work of the project including engineering services, market assessments, short-term forecasts, and regional crude and product balances. The scope of the subcontractor's resources appears extensive. I am convinced that the objectives of the proposed project are certainly achievable in the time and budget available.

Reviewer 09-06 (Rating: 3)

The study will certainly allow for a good understanding of the factors which contribute to the situation. It is less certain that solutions which would prevent future incidents of high discounts for Williston Basin Crude will be identified.

3. *The quality of the methodology displayed in the proposal is: 1 – well below average; 2 – below average; 3 – average; 4 – above average; or 5 – well above average.*

*Please comment:*

Reviewer 09-04 (Rating: 4)

The methodology is not described in the application per se. It is, however, inferred in the attachments.

Reviewer 09-05 (Rating: 1)

My comments are based on methodology defined as an orderly, definite procedure of investigating. The grant application identifies many research topics and objectives but fails to reveal a methodology that will be used by the subcontractor. The subcontractor's required work is described using terms such as "comprehensive study," "systematically evaluate," "fully evaluate," "a study report that allows informed decision making," and "careful examination." However, the methodology is not clearly displayed in the proposal in order to evaluate its quality.

Reviewer 09-06 (Rating: 5)

Purvin & Gertz is well known in the industry to have a strong capability to perform similar studies.

4. *The scientific and/or technical contribution of the proposed work to specifically address North Dakota Industrial Commission/Oil and Gas Research Council goals will likely be: 1 – extremely small; 2 – small; 3 – significant; 4 – very significant; or 5 – extremely significant.*

*Please comment:*

Reviewer 09-04 (Rating: 3)

The issue has a huge financial impact on the industry and state.

Reviewer 09-05 (Rating: 4)

I find that the proposed project addresses at least three of the five North Dakota Industrial Commission/Oil and Gas Research Council "Statutory Goals & Purposes" and at least three of the factors used for prioritizing grants.

Reviewer 09-06 (Rating: 4)

The study should provide very good insight into the factors which contribute to the situation.

5. *The principal investigator's awareness of current research activity and published literature as evidenced by literature referenced and its interpretation and by the reference to unpublished research related to the proposal is: 1 – very limited; 2 – limited; 3 – adequate; 4 – better than average; or 5 – exceptional.*

*Please comment:*

Reviewer 09-04 (Rating: 3)

Mr. Harms has been involved with NAIP for several years and has been aware of the problem and its consequences since it began.

Reviewer 09-05 (Rating: 4)

As noted in the application section titled "Project Description," the project manager is aware of related, but unpublished research by the Governor's Office, the North Dakota Industrial Commission, and the Department of Mineral Resources. The project manager is also aware of market events that may impact the scope of the project research, such as the status of the Suncor refinery, activities of the Tesoro refinery, Enbridge capacity expansion, the market for Canadian crude oil, and other market influences. As an international energy consultant, subcontractor, Purvin & Gertz, Inc. is certainly aware of research activity and published literature including their own document titled "Potential of U.S./Northern Tier and Canadian Markets to Absorb Heavy and Synthetic Crude."

Reviewer 09-06 (Rating: 4)

He correctly cites Purvin & Gertz as an excellent resource for this information.

6. *The background of the investigator(s) as related to the proposed work is: 1 – very limited; 2 – limited; 3 – adequate; 4 – better than average; or 5 – exceptional.*

*Please comment:*

Reviewer 09-04 (Rating: 2)

Mr. Harms has limited background in oil marketing or transportation.

Reviewer 09-05 (Rating: 5)

Northern Alliance of Independent Producers is an association representing independent oil and gas producers operating in North Dakota, South Dakota and Montana. Producer members are seriously affected by the factors that will be analyzed by the project. The principal investigator is President of the Northern Alliance of Independent producers, he has managed many projects while employed in state government, including research projects and he has operated his own business for 12 years as a practicing lawyer. The subcontractor, Purvin & Gertz, Inc., is an international consulting firm providing technical, commercial and strategic advice concerning the oil and gas industries and specializing in serving clients involved in the production, processing, transportation and marketing of crude oil, petroleum products, natural gas, and LPG. The background of this group is closely related to the proposed work.

Reviewer 09-06 (Rating: 3)

He has an exceptional amount of experience on the upstream (production) part of the business, but less apparent background in the downstream (refining, pipeline, and oil trading) side of the business which drives the market value of the crude oil.

7. *The project management plan, including a well-defined milestone chart, schedule, financial plan, and plan for communications among the investigators and subcontractors, if any, is: 1 – very inadequate; 2 – inadequate; 3 – adequate; 4 – very good; or 5 – exceptionally good.*

*Please comment:*

Reviewer 09-04 (Rating: 3)

Milestones for completion and financial commitment are well defined. I question how this report will be disseminated to the general public. Obviously the engineering firm charges for each copy of the report, based on the two (2) study descriptions submitted with the application. \$16,000 seems very inexpensive for a proprietary study.

Reviewer 09-05 (Rating: 1)

The grant application project provides a relatively short time frame with the completion of the project by August 31, 2006. The applicant does not provide a well-defined milestone chart, financial plan, or plan for communications between the investigator and Purvin & Gertz, Inc.

Reviewer 09-06 (Rating: 4)

No comments

8. *The proposed purchase of equipment is: 1 – extremely poorly justified; 2 – poorly justified; 3 – justified; 4 – well justified; or 5 – extremely well justified. (Circle 5 if no equipment is to be purchased.)*

*Please comment:*

Reviewer 09-04 (Rating: 5)

Not applicable

Reviewer 09-05 (Rating: 5)

The grant application gives no indication that facilities or equipment will be purchased for the research project.

Reviewer 09-06 (Rating: 5)

No comments

9. *The facilities and equipment available and to be purchased for the proposed research are: 1 – very inadequate; 2 – inadequate; 3 – adequate; 4 – notably good; or 5 – exceptionally good.*

*Please comment:*

Reviewer 09-04 (Rating: 3)

Not applicable

Reviewer 09-05 (Rating: 5)

The grant application gives no indication that facilities or equipment will be purchased for the research project. The resources of the subcontractor, Purvin & Gertz, Inc., appear exceptionally suited to the project as evidenced by the quality of the work sample titled

“Global Markets for Canadian Oil Sands Crudes.” If a rating is applicable to Question 9, I rate it as 5 – exceptionally good.

Reviewer 09-06 (Rating: 4)

No comments

*10. The proposed budget “value”<sup>1</sup> relative to the outlined work and the financial commitment from other sources is of: 1 – very low value; 2 – low value; 3 – average value; 4 – high value; or 5 – very high value. (See below)*

*Please comment:*

Reviewer 09-04 (Rating: 5)

The report should provide a great deal of needed data for the monies expended.

Reviewer 09-05 (Rating: 4)

The project budget is \$16,000. A minimum of 50% of the total project will come from NAIP and industry members. Based on the industry’s financial commitment to the project and based on research settings with which I am familiar, I believe the budget “value” is above average. Research concerning existing transportation and capacity infrastructure seems like a straightforward proposition for a firm that consists primarily of chemical engineers. Analyzing future impacts on capacity and analyzing market factors that influence price, differentials and movement of product to market may be somewhat more challenging. Certainly, alternative and recommended responses to limiting factors could prove to be priceless.

Reviewer 09-06 (Rating: 5)

No comments

*Section C. Overall Comments and Recommendations:*

*Please comment in a general way about the merits and flaws of the proposed project and make a recommendation whether or not to fund.*

*General comments:*

Reviewer 09-04 (Fund)

It is a good idea to get an external, non-biased evaluation of the root cause of this problem. Although producers, transporters, marketers and refiners believe that they know the cause and effect of the situation, each group (or members within a group) have their own bias or “spin” on the subject. This makes it difficult for government or regulatory agencies to properly evaluate and address the problem.

The proposal does not indicate if the study will provide a solution or a list of potential solutions to the problem. It should, however, provide some side boards on the available options to allow the reader to evaluate potential solutions.

I recommend that the project be funded.

Reviewer 09-05 (Fund)

The potential for this project to result in significant findings is great. The principal investigator is qualified to manage the project. The subcontractor is experienced in this type of research and appears able to produce the professional results necessary to meet the project goals. Elements of an application that the Industrial Commission finds of high priority, such as methodology, milestone chart, financial plan, and plan for communications between the investigator and subcontractor, can possibly be addressed through the subcontract. I recommend funding the project.

Reviewer 09-06 (Fund)

I know of no better way than this proposal for the State to gain an understanding of the factors which have resulted in these unusual market conditions. It is highly likely that technically feasible solutions to the problem will be identified. It is less certain that commercially viable options will be identified (unless financial incentives/support are provided.)

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<sup>1</sup> *“Value” – The value of the projected work and technical outcome for the budgeted amount of the project, based on your estimate of what the work might cost in research settings with which you are familiar.*