# WARI 1801 - Cement Alternatives

# **Purpose**

PTAC wishes to retain the services of a qualified research organization or consulting firm (the Contractor) with demonstrated experience in chemical cement alternatives. Interested parties are invited to submit a proposal according to the specification provided herein.

# **Technology Background**

When conducting subsurface well remediation operations, cement is the most commonly used product to re-establish wellbore integrity and hydraulic isolation. Technological advances have led to the modification of standard cement and alternatives to cement. The Alberta Energy Regulator (AER) requires approval or acceptance of an alternative product prior to the deployment of any cement alternative. The AER does not have a formal process for assessing and accepting or declining the use of cement alternatives.

# Project Scope

Criteria for the use of these chemical products in wellbores are inconsistent and poorly defined. Industry has identified this deficiency and recommends the implementation of a formal process to facilitate the approval and implementation of chemical cement

alternatives. Service providers, operators and regulatory bodies need consistent testing requirements established for the deployment of non-standard cement and chemical cement alternatives as it relates to wellbore remediation.

## **Deliverables**

Create a standard protocol to be followed when requesting approval for the usage of chemical cement alternatives. This standard will include, but should not be limited to:

- Safety and Toxicology during storage, handling and transportation
- Leaching toxicity
- Usage above and below base of groundwater protection depth
- Field pilot protocol
- Bonding to casing, cement and formation
- Adverse effects of product on the wellbore (i.e. corrosion, limits wellbore access, etc.)
- Longevity of the product in wellbore conditions with evidence supporting the expected longevity
- Address product integrity under anticipated adverse conditions (example interaction with H2S or diesel products)
- Process to verify the product was deployed as intended

# **Qualifications**

The Contractor will have the following qualifications:

- toxicology and chemistry qualifications to ensure human and environmental receptors are protected
- Experience in developing new product testing protocols
- Familiarity of wellbore remediation operations
- Knowledge/ experience in working with the AER on alternative applications / solutions

## **Contents of Proposals**

The requested proposal should contain a very short description of the PTAC project and scope of work, CV or statement of qualifications and short excerpts of reports written by the applicant. The proposal document, which should be approximately 5 pages in length, addressing the following elements must be delivered electronically or by mail to PTAC by the deadline stated above:

- Scope of work
- Deliverables
- Budget and execution schedules
- Personnel assigned to the project
- Qualifications (including cased hole logging/fluid flow knowledge and experience)
- Disclosure of co-funding agreements or partnerships
- Requested payment schedule, if any.

#### Schedule

The final report and all deliverables must be

completed by June 30, 2019.

# Confidentiality

The Contractor will be required to sign a confidentiality agreement related to the project. Disclosure of any project information will be at the discretion of PTAC. It is the intention of PTAC that key results and outcomes will eventually be made public.

## RFP Schedule

April 5, 2018 RFP issued

April 27, 2017 Deadline for submission to PTAC

May 8, 2017 Proposal selected by WARI.

#### **Selection Process**

PTAC has formed a Steering Committee for this project composed of industry stakeholders with relevant expertise pertaining to cement integrity assessment. PTAC will facilitate Steering Committee proceedings but will not be a decision-maker.

All submitted proposals will be provided to the Steering Committee for review. The Steering Committee will determine if proposals meet the requirements herein and provide an overall ranking based on Contractor qualifications and on proposal quality. The Steering Committee will make the final decision.

Once a selection of the best proposal according to the Steering Committee has been made, all submission contacts will be notified by email of the regarding the outcome of their individual proposal. The project

final report will be shared on the PTAC website upon completion of the project.

## **Contact Information**

Proposals should be submitted online using the following form: http://auprf.ptac.org/2018-letter-of-intent-step-2/

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