

**Project Proposal**

submitted to the Institute for Oil Sands Innovation (IOSI)

at the University of Alberta

**Theme: Bitumen Extraction, Instrumentation, Oil Sands Mining, or Mine Closure**

(delete three irrelevant)

**ENTER PROJECT TITLE**

**Principal investigator:** (name, affiliation, full address, phone number and email)

**Co-investigators:** (name, affiliation, full address, phone number and email for each co-investigator; do not include trainees or other research/technical personnel)

**Funding requested each project year and total** (including overhead)**:**

|  |
| --- |
| I, principal investigator, acknowledge, that co-investigators and I reviewed 1. (researcher external to the UofA): IOSI Project Agreement Category select A or B [as received from IOSI], or
2. (UofA researchers): Acknowledgement of the Terms and Conditions of Researcher Participation in IOSI Projects,

as provided to me by IOSI along with the invitation for the full proposal. We understand that we will be required to agree to those terms and conditions, if the project is approved for funding: *select* YES/NO |

Submission date: xx, month, 20xx

1. **Summary of the proposal for public release**

Briefly describe the addressed problem and proposed approach in language the public can understand. Indicate the anticipated outcomes and how your field and the oil sands industry will benefit.

1. **Background and anticipated outcomes** *(maximum 2 single-spaced pages)*

Outline the research goals and explain the background, novelty, and potential outcomes and impacts. Describe the topic's importance to oil sands and how the expected outcomes will benefit the industry. Explain the new concepts or directions needed to address the topic and how this research will fill knowledge gaps related to developing new and innovative processes or technologies in oil sands.

Include a business case to demonstrate the value of the proposed product and/or technology and GHG emission reduction where applicable. The detailed discussion of environmental and economic benefits is paramount in the assessment.

Please include the start and potential end TRL levels of the project as per AI classification:

<https://albertainnovates.ca/wp-content/uploads/2018/05/Technology-Readiness-Levels.pdf>

*Please note that IOSI supports both fundamental and applied research, including proof-of-concept. However, any fundamental research must demonstrate a clear line-of-sight toward technology commercialization in oil sands mining operations.*

1. **Proposal** *(maximum 4 single-spaced pages)*

Outline the research objectives. Include detailed methodology. If applicable, we recommend including a process flow diagram, if different from existing, including regeneration/recycle and waste streams, when applicable. Provide activity schedule: indicate approximate timelines for the activities to lead to milestones and deliverables using a Gantt chart, table or diagram. Identify the indicators and methods for monitoring progress during the project and for assessing the outcomes.

1. **Available and requested infrastructure and consumables** *(maximum 1 single-spaced page)*

Describe if your research requires samples from oil sands mining operations and how much. Many samples could be obtained from Imperial Oil (discuss with IOSI during the proposal development). Alternatively, one can purchase mature fluid tailings (MFT) samples from the Sample Bank at Innotech Alberta <https://innotechalberta.ca/services/reservoir-geosciences/ore-and-mft-sample-banks/>.

Provide details if the infrastructure (equipment, space, etc.) is in place (PI or co-PI’s laboratories or if you have access to the required equipment and at what user’s fees). Please review the equipment available at the IOSI Laboratory (<https://iosi-alberta.ca/lab/>). The laboratory services and training are free to IOSI researchers, subject to selected consumables and materials. Explain in detail in your proposal if you plan to use some IOSI laboratory services or equipment, approximately at what frequency and for how many samples or hours.

If new equipment is needed for you project, provide justification. IOSI expects the new equipment cost to be within C$50k.

1. **Team** *(maximum 1 single-spaced page)*

Explain how the knowledge, experience and achievements of principal investigator, co-investigators and other key staff will provide the expertise needed to accomplish the project objectives. Discuss the role of each individual and how their contributions will be integrated into the project.

1. **Training plan** *(maximum 1 single-spaced page)*

Include categories of the trainees (PhD student, etc.), their number, their roles in the project. Describe what technical and other skills they will acquire during the project.

1. **References** *(maximum 2 single-spaced pages)*

Citations should include all authors, full titles of the cited articles (patents, book chapters), journal title, volume, year and pages in any format. If possible, include doi (not required) for a quick lookup by reviewers.

1. **Budget**

Fill out the Excel Budget template from the IOSI website <https://iosi-alberta.ca/forms/>, attach the excel file to your submission. In addition, copy-paste the table here. Provide a brief justification for the expenditures.

Address the following mandatory questions:

1. requested overhead rate (for projects external to the UofA) based on the organization’s policy but up to a maximum of 25% as per IOSI regulations.
2. is the PI eligible to apply for NSERC matching via Alliance grant program?
3. if the answer is “yes” in question 2, explain your organization policy on the indirect cost of research if the project is co-funded by NSERC: is the overhead charged to the partner organization and at what rate?
4. **Relationship to other research support**

Include only those projects which have overlap with the proposed project.

1. **Personal data form**

Only for the principal investigator and co-investigators, do not include trainees. The form can be in any format (CCV, CV, resume with included publications, etc.) but it must demonstrate the investigator’s expertise to undertake the proposed research.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Delete the following from the application:

**Selection criteria**

The proposals are evaluated by the IOSI scientific advisory committee (SAC) on the basis of the following criteria:

1. Scientific merit
2. Competence of the research team
3. Training opportunities
4. Project work plan
5. Potential to support significant advances in technology for oil sands development.

Note that Criterion 5 is essential for funding by IOSI. Both fundamental and applied research is supported, including proof-of-concept, however, fundamental research must have a clear line-of-sight towards technology commercialization in oil sands mining operations.

***Submit the full proposal in a pdf format, along with Excel budget table,***

***by the deadline, by email to*** ***iosi@ualberta.ca***