

PROJECT RELATED EXPERIENCE - PEER REVIEWS of AIR QUALITY and RISK

2016

Teck R5 **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Imperial Cold Lake **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Mactaquac Dam **New Brunswick, Canada**
Critical of proposed developments for Mactaquac Dam. In association with MSES.

Imperial, Aspen **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Thornbury **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Sisson Approval Conditions **New Brunswick, Canada**
Critical of a proposed metals surface mine. In association with MSES.

2015

Midzaghe, Imperial **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

NGTL Expansion **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

VCI, Tristar Pilot Project **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Teck Update **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Sisson **New Brunswick, Canada**
Critical of a proposed metals surface mine. In association with MSES.

Syncrude, Mildred Lake Expansion **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Grizzly May **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Koch, Dunkirk **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Ackroyd LLP, ATCO pipeline **Alberta, Canada**
Critical review assessment of ATCO's proposed natural gas pipeline adjacent to proposed senior's house development. Hazard and risk assessment using ZZArisk.

Alberta Energy Regulator, Pembina Pipeline **Alberta, Canada**
Expert reviewer on behalf of AER of Pembina Pipeline Fox Creek to Edmonton, during hearing and preparation of materials supporting decision report.

Ackroyd LLP, TAMA Power **Alberta, Canada**
Critical review assessment of TAMA power assessment of proposed power plant and use of anhydrous ammonia. Risk calculations and modelling using ZZArisk.

2014

CNR, Horizon **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Imperial Oil, Aspen **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Rigel Oil Sands, Prosper **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Teck-Round 3 **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Hangingstone **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Northcliff, Sisson Project, EIA **New Brunswick, Canada**
Critical in the New Brunswick Region of a proposed mine project. In association with MSES.

Marathon, Birch Hills **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Suncor, Fort Hills **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Shell Pierre River **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Teck Phase B **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

2013

Teck Review, SIR2 **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Teck Review, SIR 1 **Alberta, Canada**
Critical in the Athabasca Oil Sands Region. In association with MSES.

Sisson Mine **New Brunswick, Canada**
Critical of the Sisson mine project in New Brunswick. In association with MSES.

Foothills **Alberta, Canada**

Critical in the Athabasca Oil Sands Region. In association with MSES.

STP Workshop **Alberta, Canada**

Critical in the Athabasca Oil Sands Region. In association with MSES.

Grizzly Thickwood **Alberta, Canada**

Critical in the Athabasca Oil Sands Region. In association with MSES.

Teck Frontier **Alberta, Canada**

Critical review of the Tech Frontier (formerly Silverbirch) mine environmental assessment supplementary questions responses, in the Athabasca Oil Sands Region. In association with MSES.

2012

Gemini SAGD, Koch **Alberta, Canada**

Critical review of the Kock Gemini SAGD in the Athabasca Oil Sands Region. In association with MSES.

STP McKay SAGD **Alberta, Canada**

Critical review of the STP McKay SAGD in the Athabasca Oil Sands Region. In association with MSES.

Tech Frontier **Alberta, Canada**

Critical review of the Tech Frontier (formerly Silverbirch) mine environmental assessment supplementary questions, in the Athabasca Oil Sands Region. In association with MSES.

Cenovous Telephone Lake-SAGD **Alberta, Canada**

Critical review of the Cenovous Telephone Lake SAGD in the Athabasca Oil Sands Region. In association with MSES.

Sunshine Birch Mountain **Alberta, Canada**

Critical review of the Sunshine Birch Mountain SAGD in the Athabasca Oil Sands Region. In association with MSES.

Suncor Firebag, **Alberta, Canada**

Critical review of the Firebag update, in the Athabasca Oil Sands Region. In association with MSES.

Suncor MacKay **Alberta, Canada**

Critical review of the MacKay project update, in the Athabasca Oil Sands Region. In association with MSES.

Ivanhoe **Alberta, Canada**

Critical review of the air quality section of the Ivanhoe SAGD development north of Fort McMurray, update. In association with MSES

2011

Whitesands May River Project, Petrobank **Alberta, Canada**

Critical review of the air quality assessment for the Whitesands project for THAI (toe to heel air injection) and in-situ combustion/heating of formation. In association with MSES.

MacKay River Commercial Project, AOSC **Alberta, Canada**

Critical review of the MacKay River SAGD project air quality assessment. In association with MSES.

Firebag, Suncor **Alberta, Canada**

Critical review of the Firebag Project renewal. In association with MSES.

MacKay, Suncor **Alberta, Canada**

Critical review of the MacKay Project renewal air quality assessment. In association with MSES.

West ELLS SAGD Project, Sunshine Oil Sands **Alberta, Canada**

Critical review of the environmental impact study, air quality assessment. In association with MSES.

Dover Commercial Project, Dover **Alberta, Canada**

Critical review of the Dover Commercial Project air quality assessment. In association with MSES.

SilverBirch **Alberta, Canada**

Critical review of the SilverBirch (formerly UTS Tech) air quality workplan. In association with MSES.

Ivanhoe **Alberta, Canada**

Critical review of the air quality section of the Ivanhoe SAGD development north of Fort McMurray. In association with MSES.

2010

Christina Lk Phase 3, MEG Energy **Alberta, Canada**

Critical review of MEG Energy responses to MCFN review of the Christina Lake Phase 3 EIA. . In association with MSES.

Devon Jackfish 3 **Alberta, Canada**

3PC reviewer on behalf of AENV. Critical review of the air quality component of the Devon Jackfish 3 EIA.

Connacher **Alberta, Canada**

3PC reviewer on behalf of AENV. Critical review of the air quality component of the Connacher EIA.

UTS Tech **Alberta, Canada**

Critical review of the air quality UTS Tech work plan. In association with MSES.

2009

Albian Sands **Alberta, Canada**

Critical review of the air quality annual report. In association with MSES.

MacKay STP **Alberta, Canada**

Critical review of the air quality update to the license to operate. In association with MSES.

MEG Phase 3 **Alberta, Canada**

Critical review of the air quality update to the license to operate. In association with MSES.

MacKay River **Alberta, Canada**

Critical review of the air quality update to the license to operate. In association with MSES.

EnerPlus **Alberta, Canada**

Critical review of the air quality update to the license to operate. In association with MSES.

2008

NAOSC-Kai Kos **Alberta, Canada**

3PC reviewer on behalf of AENV. Critical review of the air quality component of the North American Oil Sands Corp. (StatOil) Kai Kos EIA. In association with IRIS.

NAOSC-Upgrader **Alberta, Canada**

3PC reviewer on behalf of AENV. Critical review of the air quality component of the North American Oil Sands Corp. (StatOil) Fort Saskatchewan Upgrader EIA. In association with IRIS.

ALGAR **Alberta, Canada**

Critical review of the air quality component of the Approval of ...on behalf of the MCFN First nations. In association with MSES.

Fort Hills **Alberta, Canada**

Critical review of the air quality component of the Approval of ...on behalf of the MCFN First nations. In association with MSES.

Synenco **Alberta, Canada**

Critical review of the air quality component of the Approval of ...on behalf of the MCFN First nations. In association with MSES.

Nexen, Long Lake South **Alberta, Canada**

Critical review and strategic advisor for air quality modelling for SAGD oil and gas development in northern Alberta. In association with Matrix Solutions for Nexen.

East Athabasca Highway Project **Alberta, Canada**

Critical review of air quality issues related to the extension of the east Athabasca highway ...on behalf of the MCFN First nations. In association with MSES.

Suncor MD9 **Alberta, Canada**

Critical review of air quality issues related to the Suncor Mine Dump 9. a...on behalf of the MCFN First nations. In association with MSES.

AENV Policy 1A **Alberta, Canada**

Critical review of air quality issues related to the Alberta Environment Policy 1A relating to the combustion of alternative fuels for the purposes of creating steam in the oil and gas sector. In association with MSES on behalf of First Nations Interests.

2007

MEG Terms of Reference **Alberta, Canada**

Critical review of the air quality component of the terms of reference for the MEG expansion on behalf of the MCFN First Nations. In association with MSES.

Albian Albian Sands **Alberta, Canada**

Critical review of the air quality component of the Approval of Albian Sands on behalf of the MCFN First Nations. In association with MSES.

Prince George, PBEC **Alberta, Canada**

Review of the CALPUFF/CALMET air quality model configuration for the UNBC Prince George air shed preliminary model. The model consists of a CALMET wind field configuration using local station meteorology and local upper air station data. In association with SEACOR.

ATCO **Alberta, Canada**

Critical review of the air quality component of AENV Application for Approval for ATCO Fort Chipewyan Power Plant on behalf of the MCFN First Nations. In association with MSES.

Christina Lake **Alberta, Canada**

Critical review of the air quality component of the Amendment of Approval for EnCana Christina Lake on behalf of the MCFN First Nations. In association with MSES.

Kearl Lake **Alberta, Canada**

Critical review of the air quality component of the Approval of Kearl Lake Oil Sands Processing Plant and Mine, on behalf of the MCFN First Nations. In association with MSES.

Suncor Approval **Alberta, Canada**

Critical review of the air quality component for the Application for Expansion of an Oil Sands Mine (North Steepbank Mine Extension) and a Bitumen Upgrading Facility (Voyageur Upgrader) in the Fort McMurray Area on behalf of the MCFN First Nations. In association with MSES.

Nexen **Alberta, Canada**

Critical review of the air quality component of Final Terms Of Reference Environmental Impact Assessment (EIA) Report For The OPTI Canada Inc./Nexen Inc. Long Lake Phase 2 SAGD Oil Sands Project on behalf of the MCFN First Nations. In association with MSES.

Devon Jackfish 2, EIA **Alberta, Canada**

3PC reviewer on behalf of AENV. Critical review of the air quality component of the Devon Canada Jackfish 2 EIA. In association with IRIS.

Syncrude Approval **Alberta, Canada**

Critical review of the air quality component of the Approval of Syncrude's Mildred Lake and Aurora Projects on behalf of the MCFN First Nations. In association with MSES.

2006

JACOS **Alberta, Canada**

Review of air quality modelling performed by a JACOS engineering firm.

Suncor Firebag Stages 4-6 **Alberta, Canada**

Critical review of the air quality component of the Suncor Firebag Stages 4-6 application on behalf of the MCFN First Nations. In association with MSES.

Syncrude Renewal Application **Alberta, Canada**

Critical review of the air quality component of the combined Syncrude operations at Mildred Lake and Aurora on behalf of the MCFN First Nations. In association with MSES.

Brule Mine, EBA Engineering **British Columbia, Canada**

Critical review of the air quality section of the Brule Coal Mine EIA in the Sukunka region of British Columbia for EBA Engineering Consultants Ltd. on behalf of the First Nations. In association with MSES.

Renewal, JACOS **Alberta, Canada**

Review of preliminary air quality modelling for renewal application.

2005

2004

2003

Nunavut HHRA **Alberta, Canada**

Critical review of the human health and environmental risk assessment for future land use developments and potential exposure to lead, arsenic, cadmium and other heavy metals from historical mining land use. In association with TOXCON.

2002

Peer Review, Shell-Jackpine EIA, Inuvialuit Environmental **Alberta, Canada**

Critical review of the air quality section of the Shell-Jackpine Mine EIA in Fort McMurray Oil Sands region for Inuvialuit Environmental Group on behalf of the MCFN First Nations.

Peer Review, CNRL-Horizon EIA, Inuvialuit Environmental **Alberta, Canada**

Critical review of the air quality section of the CNRL-Horizon Mine EIA in Fort McMurray Oil Sands region for Inuvialuit Environmental Group on behalf of the MCFN First Nations.