ALBERTA INNOVATES

ADVANCED HYDROCARBONS

CLEANER HYDROCARBON PRODUCTION - DIGITAL OILFIELD

Multivariate Optimization and Automation of Oilfield Disposal & Transportation Logistics

North American oil & gas producers spend over \$40 billion annually on waste disposal consisting of small value, high frequency transactions made up of millions of loads. Too often decisions are made based on convenience with massive inefficiencies, environmental impacts, and cost overruns.

Galatea's Waste Coordinator platform allows producers to efficiently analyze the optimal location for waste disposal. The platform provides first-of-its-kind market transparency and optimized decision-making, incorporating disposal costs, oil credits, transportation costs, wait times, road closures, etc.

		And the second second	the statement and a statement
and the family	100	Manual Annual Annual Contract of Contract of Contract	the same provide the second second
and the local data	100	Accession, new York, Married Street, S	the set the set of the
and the second second		Annual from the local division of the	the second second second second
	1.000	Annual and the local division in the	THE CONTRACT ADDRESS ADDRESS
and the second	(Sec.	Automatic street, Stre	and state property, success, success,
and the second second	- Ann	Autority and the stand and and the	the second strength of the second second
and the second	100	And and the second division of the second div	the same business and the same second
	hard and a second se	Autor and the second second second second	The second secon
		And the second s	and have a second and second and second
-		And I'm Read a second second	and the second s
the second	200	Stands and the second stands and	server harmonic parameters
	1.00	Annual and the local data and the	the second second second
	(Annu-	And the set of the set	and the second second second second
		A DATE THAT AND A DATE OF THE OWNER O	



FUNDING DETAILS

APPLICATION

The project will be the first-of-its-kind solution connecting waste supply with disposal and recycling demand in a sophisticated, real-time transparent platform. With centralized data collection, real-time optimization and data-driven scheduling optimization, the project will automate oilfield waste disposal, brokering transactions that generate meaningful cost and GHG emissions savings. The opportunity can be expanded in the future to other industries as well.

ALBERTA INNOVATES

ADVANCED HYDROCARBONS

CLEANER HYDROCARBON PRODUCTION – DIGITAL OILFIELD

PROJECT GOALS

- Develop a sophisticated algorithm that combines and quantifies environmental impacts into the waste disposal decision-making process
- Proving successful field validation with Danzig Resources
- Quantifying and reporting GHG impacts and water/waste diversion statistics
- Developing a sophisticated optimization tool that automates conventional decision-making

BENEFITS TO ALBERTA

- Reductions in GHG emissions through optimized vehicle traffic
- Increased beneficial water re-use and recycling
- Reduction in overall operating expenses and increased resource value, leading to higher taxes paid and greater capital availability for resource development
- Increased transparency in the waste disposal and trucking businesses
- Building capacity in the digital economy
- Potential export to other jurisdictions and industries



CURRENT STATUS March 2020 Project kickoff underway

Disclaimer • Alberta Innovates (AI) and Her Majesty the Queen in right of Alberta make no warranty, express or implied, nor assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained in this publication, nor that use thereof infringe on privately owned rights. The views and opinions of the author expressed herein do not necessarily reflect those of AI or Her Majesty the Queen in right of Alberta. The directors, officers, employees, agents and consultants of AI and the Government of Alberta are exempted, excluded and absolved from all liability for damage or injury, howsoever caused, to any person in connection with or arising out of the use by that person for any purpose of this publication or its contents.