ISOTOPES CANADA

VALUE PROPOSITION
WATERFLOODS EOR

Isotopes Canada's tracers are a cost-effective service for optimizing reservoir performance for Waterfloods and Enhanced Oil Recovery (EOR) assets, resulting in enhanced profitability. The tracers can be injected with water, polymer or other injection stream to provide improved knowledge of reservoir fluid movement. Our exclusive Isotopes Canada tracers are unaffected by the chemical environment, reservoir temperatures or pressures. Custom designed sample schedules are created per the customer's needs, yielding precise quantitative information about the reservoir.

FAQ'S

How is the tracer injected?
Injected directly into the wellhead or into tank or at battery.
Can the tracers help to identify the source of interwell communication?
Yes, the tracer can locate or eliminate a well or set of wells as source of communication.
Is the tracer work in vertical and horizontal wells?
The tracer is applicable in well configurations for vertical, horizontal, or directional.
Is the tracer compatible with injected water, field chemicals, or reservoir fluids?
Yes, our portfolio of tracer formulations is compatible.
What happens to the produced tracer in returns to the facility?
Tracer follows the water phase.
How are samples obtained for testing?
Fluid samples are collected from production well(s), separation facility, or other sample point – obtained by operator or Isotopes Canada.
What is the sample testing frequency?
Frequency depends on case by case – typically starting at higher frequency and over time moving to lower frequency.
What are samples collected in?
Sample containers need to be clean and properly labeled and can be plastic or glass. The sample volumes can be as low as 10ml to 1L.
Where are the samples processed?
The laboratory analysis is conducted at our Calgary lab.
How many formulations do you have?
We have a portfolio of many tracer formulations with ongoing work to expand our product line.
What is the timeline for completion of testing and providing results?
From time of sample arrival to completion is approximately 5-7 business days.

Solutions

Isotopes Canada tracers help determine from point of injection to collection where water, gas or solvents are moving, communication time, and what anomalies may be present.
This data contributes to critical decision-making about:

- Determining and improving sweep efficiencies
- Assessing drilling positions
- Infill drilling optimization

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- Determine communication between wells or away from wells
- Identifying by-passed hydrocarbons
- Assess flow direction
- Evaluate flow out of zone

Isotopes Canada tracers provides accurate data about injection travel time, direction and influences, while defining reservoir anomalies, heterogeneity and interconnectivity.

Workflow

- Clients provide initial data for tracer program design.
- Program design and cost proposal prepared.
- Field execution plan is finalized.
- Administer tracer injection as per plan.
- Sample protocol executed.
- Samples sent by courier to Isotopes Canada, Calgary laboratory.
- Samples are evaluated and results sent to client.

Previous Experience

- In business since 1981, completing over 500+ jobs with many repeat clients.
- Have conducted tracer programs for waterfloods for over 30 operators in Western Canada and internationally.
- Heavy Oil & Oilsands – Completed tracer programs for over 6 operators in the Cold Lake and Athabasca regions.
- Core tracing services for over 300 locations for exploration and production companies.

HSE

- Isotopes Canada has a proven track record of safe and reliable services for almost 40 years.
- Our employees and contractors meet HSE industry training requirements
- We are committed to services that ensure the safety and health of our employees, contractors, clients, and other stakeholders.
- Isotopes Canada is compliant with the Canadian Nuclear Safety Commission for our in-house tracer formulations and maintains a rigorous audit process.
- At all levels of our organization, we commit to safe operations and protection of the environment.

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