nexREZ, Subsurface Data Platform

Block-chain-enabled Accelerated Logistics & Inter-Company Data Integration
Today’s highly competitive commodity price environment requires onshore unconventional operators to maintain low operating costs while sustaining a demanding rig schedule to keep production up.

Operator’s are pressed to make heavy financial decisions in a limited time frame while needing to analyze a broad range of data types consumed by many disciplines. Some of the most critical data type’s are historically difficult to manage and consume.
SUBSURFACE DATA VALUE CHAIN

Let's start with Core Data

High Level Service Company Process

Limited Operator Visibility

Order
- Project Plan

Sample Acquisition
- Sample Creation

Lab Analysis
- Measure against standards
- Versioning

QA for Release
- Data Storage
- Enriching Meta Data

Data Delivery
- External Facing
- Data Security

Project Life Cycle Management & Reporting

Sample Inventory Management & Logistics

Data Management & Delivery

Asset/ Exploration Geologist

Geochemist

Petrophysicist

Sedimentologist / Stratigrapher

Geo Mechanics Specialist

Petrologist

Reservoir Modeler

Completion Modeler
Multiple Sample Relationships
- Sample Genealogy
- Container Relationship
- Physical Location

Service Company Challenges
- Historic Systems Struggle To Manage These Complex Relationships
- Historic Systems Require Too Much overhead to manage
- Inventory Is Difficult To Locate Due to the issues above
- Capitalizing on storage costs are typically lost opportunities due to historic systems limited integration with the project management / invoicing systems

Operator Issues
- Managing Sample Inventory Is a struggle post project
- Re-Sampling Historic Inventory is extremely time consuming
- Requesting Physical movement or services requires a direct line of communication with service company project manager
nexREZ

evolved subsurface data value chain

Operator Value Proposition

+ Analysis Delivered with Full History & Context!
+ Manage Physical Inventor, post lab project, no duplicate entry!
+ Full Laboratory Project Reporting Visibility
+ Transfer Ownership!
+ Manage your own data security!
+ Partner parties can be granted limited access based owning operator’s security settings.
+ Data can be delivered directly to your organization’s OSDU instance, inheriting all data and security entitlements.
nexREZ
evolved subsurface data value chain

Service Company Value Proposition

+ Bring your customers closer to you!
+ Sell new services on existing projects through web store front.
+ Inventory Management with full genealogy, location tracking support.
+ Operator’s gain free read only access to inventory.
+ Create a new Revenue Stream! On Operator Sales & License Renewals!
+ Leverage Web Based Data Distribution Portal
+ Leverage sample life cycle to analyze your project cycle times!
FOUNDING MEMBER OPPORTUNITY!
Industry Transformation Requires Dance Partners!

Service Lab – Founding Partner Offer

<table>
<thead>
<tr>
<th>Participation Condition</th>
<th>1. Assumed 100% Startup Investment Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>1. Enterprise Access for 1 year</td>
</tr>
<tr>
<td></td>
<td>2. 20% license discount, after year 1</td>
</tr>
<tr>
<td></td>
<td>3. 20% Revenue Share, For Bringing On Paying Operators</td>
</tr>
<tr>
<td></td>
<td>4. 10% Revenue Share on all Core Service Company Licenses</td>
</tr>
</tbody>
</table>

Operator – Founding Partner Offer

<table>
<thead>
<tr>
<th>Participation Condition</th>
<th>1. Assumed 100% contribution to MVP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits</td>
<td>1. 100% Discounted Enterprise Access for 1 year</td>
</tr>
<tr>
<td></td>
<td>2. 20% license discount across enterprise</td>
</tr>
</tbody>
</table>

MVP Funding Target
- 1,000,000

Profit Sharing / Discount Conditions
- Profit Sharing and Discount Variables adjust in relation to each founding member's contribution to MVP target funding.

Revenue Share Restrictions
- Revenue share can not be sourced from a companies' own license costs

License Point of Sale
- Service Company Point of Sale Handled through the NexRez Platform
THANK YOU

Let's Kick Start This Business Transformation!

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Sigma Ledger
RON CLYMER
Senior Managing Consultant, Upstream Energy

Ron Clymer has 9 years of upstream oil and gas domain experience, specializing in enterprise subsurface data management, business life cycle, solution development and enterprise capability enablement. He currently serves as a Senior Managing Consultant for EPAM System’s upstream oil and gas practice and has served as the Subsurface Data Management, Process and Governance Lead at Devon Energy Corporation, where he established the subsurface data management practice, developed a proprietary full life cycle enterprise subsurface master data system, and lead a culture of innovation, integration and collaboration between the engineering, geoscience and reservoir communities. As a member of PPDM and SPWLA, Ron has presented and authored multiple white papers on executing and evolving subsurface capabilities for the enterprise in global upstream forums such as PPDM, PNEC, SPWLA Data & Analytics, and the Landmark Innovation Forum (LIFE). Ron currently is an active contributor to the OSDU forum. Ron holds a Bachelors of Fine Arts from the University of Oklahoma.
Open Subsurface Data Universe

OSDU

**Industry Movement To Create A Common Functional Subsurface Data Ecosystem!**
- 107 Companies
- Cloud Vendor Agnostic
- Next Generation Cloud Native Ecosystem For Subsurface Applications!

**NexRez Roadmap Offering!**
Operator Subscription Upgrade!
- Ingest Structured Core Data The Moment its Available!
- Ingest Operator Managed Entitlements
- Ingest Full Logistical History With Scientific Provenance

Find out more at:
https://www.opengroup.org/osdu/forum-homepage
## Service Company Tiered Subscription Model

Enterprise-Wide Subscription, yearly subscription

<table>
<thead>
<tr>
<th>Feature Description</th>
<th>Tier 1 – Inventory Management</th>
<th>Tier 2 – Project Lifecycle</th>
<th>Tier 3 – Data Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Data Security for Operators Tier 0</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Manage Data Security for Operators Tier 1&amp;2</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Can create sample inventory</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Can manage containers</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Can manage sample genealogy</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Can manage a work order from project creation to final data released to client.</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Can access to a publishing portal for data procured through the lab operations</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Service Store Front: Request Layout Room</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Service Store Front: Request New Sample</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Service Store Front: Purchase New Lab Analysis</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Data Management and Delivery Suite</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><strong>Annual License Cost</strong></td>
<td><strong>$ 250,000</strong></td>
<td><strong>$ 500,000</strong></td>
<td><strong>$ 750,000</strong></td>
</tr>
</tbody>
</table>

**Academic & Government Pricing Available**
## OPERATOR TIERED SUBSCRIPTION MODEL

Subscription by Incorporated Entity, Yearly Renewal

<table>
<thead>
<tr>
<th>Feature</th>
<th>Tier 0 – Free Access</th>
<th>Tier 1 – Inventory Management</th>
<th>Tier 2 – Data Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visibility into their inventory (read only) within custody of the Lab</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Visibility into their inventory including items, which are no longer in Lab’s custody</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Accept items into their inventory created by the Lab</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Create new inventory</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Create new containers</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Create new labels</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Data security is managed by Lab</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Data security is managed by Operator</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Sample inventory can be created by Lab</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Sample inventory can be created by Operator</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Inventory is visible after Project closure</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Inventory is visible after change of custody from Lab to Operator</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Service Store Front access</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>Annual License Cost</strong></td>
<td><strong>Free</strong></td>
<td>$100,000</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

**Operator licenses are per incorporated entity**

Add-On

<table>
<thead>
<tr>
<th>Feature</th>
<th>Tier 0 – Free Access</th>
<th>Tier 1 – Inventory Management</th>
<th>Tier 2 – Data Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Data Delivery (OSDU - Data Delivery with entitlements and data ingestion)</td>
<td>$150,000</td>
<td>$100,000</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

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