22 80 X 28

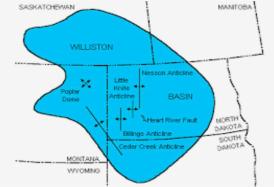


2 NORTH DAKOTA 1972 - 2020 WELLS HALF ARE READY TO BE PUT TO BED.

	WELLS	Liability Estimate	%	
Producing	12,957	\$3,745,190,641	46%	
Stripper	5,009	\$1,174,492,632	14%	
Injection + Other	11,703	\$3,056,601,700	37%	
Temp. Abandoned	322	\$80,036,489	1%	
Zombie (LP<60)	504	\$110,137,327	1%	
TOTAL	30,495	\$8,166,458,789	100%	
NORTH DAKOTA - 31 OPERATING				
Temp. Abandoned	17	\$1,484,199	8%	
Zombie (LP<60)	12	\$907,959	5%	
TOTAL	229	\$18,077,904	100%	
NORTH DAKOTA - CONTINENTAL RESOURCES				
Temp. Abandoned	8	\$2,136,494	0%	
Zombie (LP<60)	17	\$4,568,632	0%	
TOTAL	3,312	\$923,383,321	100%	
NORTH DAKOTA - DENBRUY RESOURCES				
Temp. Abandoned	2	\$469,982	0%	
Zombie (LP<60)	25	\$5,848,765	3%	
TOTAL	722	\$168,907,377	100%	
NORTH DAKOTA - HESS				
Temp. Abandoned	43	\$12,286,846	2%	
Zombie (LP<60)	42	\$10,133,862	1%	
TOTAL	2,461	\$714,417,203	100%	
NORTH DAKOTA - WHITING PETROLEUM				
Temp. Abandoned	20	\$5,363,362	1%	
Zombie (LP<60)	12	\$2,768,786	0%	
TOTAL	2,308	\$680,846,745	100%	
www.carbontracker.org				

3 Bakken Shale Maps - Bakken Shale Play bakkenshale.com

WILLISTON BASIN



Where Oil and Politics Mix - The New **Bakken Mega Site**



5 Brine Spills / Evaporation Pits: Six Great Tasks

As of June 2019, in the map, are the locations of the North Dakota's lateral, ie. unconventionally or frack produced, oil wells. The conventional wells, straight up and down and usually older wells, that is legacy wells are not shown. The map of fracked wells was posted in Bismarck at the Annual National Organization of Royalty Owners (NARO) Annual Conventior

- Find old pits
- Restore the worst salted acres by dig and hau or isolate them by curtains and caps:
- Restore the least damaged acres by establishing drain tiles:
- Close abandoned wells
- Removed dilapidated buildings; and
- Bury junk piles.

SHOULD TRANSFERRING OF **ABANDONED WELLS BE ALLOWED?**

- How can regulators assess whether to allow transfers of mature wells without additional financial insurance?
- How can the federal government assess whe mitigating the risk of orphaned wells as a co
- driven by the residual economic life of the wells and those seeking to ring-fence retirement obligations in an under-capitalized entity?

We believe holdback analysis provides all parties a tool for answerin these and other related questions.

7 THE EVENT HORIZON: HOLDBACK Figure 3.1: SCHEMATIC OF HOLDBACK WITHIN A CASH FLOW PROJECTION.



Holdback analysis estimates a critical boundary line: the moment in the economic life of a well (or group of wells) at which all future undiscounted net proceeds equal the cost to properly retire the asset. That point represents the shift from the paradigm of "distributable" cash flow to the paradigm of "holdback." (Figure 3.1)

"Holdback identifies a clear shift in the life-cycle of a well - from financially dependent — which is necessary to understand for a range of stakeholders to make informed decisions about investing, asset retirement planning, or regulating financial assurance requirements, among other things."

Holdback analysis builds a cash flow model for one or more wells, schedules retirement costs, and identifies the point in time when an operator must begin to "hold back" funds to cover asset retirement. On a stand-alone basis, all proceeds would need to be dedicated to retirement

8 Is this well really held by Production?



DON'T GRIND YOUR TEETH, DO SOMETHING!

Donald Nelson, President ph: (701) 580-2182 email: donelson@ruggedwest.com (Keene, ND) • Marvin Nelson, Vice President ph: (701) 477-5048 email: oilsakakawea@gmail.com (Rolla, ND) **Paul G. Neilan**, Secretary of Treasurer ph: (312) 580-5483 email: pgneilan@energy.law.pro (Chicago, IL)









Salt Contaminated Land & Water



ASKS MR. HAMM WHAT DO YOU HAVE IN MIND FOR THE FAMILY FARM. FINDOOLEY@GMAIL.COM

TEXTABLE CELL 414-731-0520

Fintan

- Protecting the family farm from Hamm & friends and your land from oil industry walk-offs
- Enforcing Air Quality Laws
- Protecting Public Trust Property and the taxpayer
- Re-purposing the Legacy Fund for Reclamation
- Acknowledging that failed or delayed reclamation constitutes a "taking" and an inverse condemnation making the state liable
- Require Summit Carbon to pay full market value of the conveyance of their gas in the pipeline under your land.

GOVERNOR, YOUR FLAG? YOUR STUFF?



Should transferring of abandoned wells be allowed? 8. Held by production? 7. Holdback is the honest way. 6. Brine Spills 2.

9. Well Status Detail 10. Well Types 11. Cares Act - Well Plugged Data 12. Plugging and Abandonment (P&A) **13.** Plugging Cost Detailed **14.** ND Boreholes **15.** Spill Site Characterization by Moses 16. Executive Summary of Asset Retirement Obligation (AROs)

q CARBON TRACKER ANALYSIS carbontracker.org WELL STATUS DETAIL

production less than 15 barrels of oil or 90Mcf of natural gas.

of Well

10.326

7,279

11,437

108

11 DESCRIPTIVE STATISTICS FOR ND CARES ACT WELL PLUG DATA

12 NORTH DAKOTA P&A COST DATA IS BAD NEWS FOR

Author - Stephen Greenslade ARO Analyst, Regulatory & Accounting

As the Colorado Oil and Gas Conservation Commission's (COGCC) seeks

to fulfill its statutory mandate to "require every operator to provide assur-

ance that it is financially capable of fulfilling every obligation imposed" by

the state's rules and regulations, 1 it needs to figure out how much it will

really cost to plug and abandon its wells. For evidence, it should look to

North Dakota, where last year's CARES Act well plugging program has

costs roughly double that total, bringing per-well retirement costs to over

13 PLUGGING COSTS

Plugging invoices from North Dakota's

CARES Act plugging program, retrieved

through a Freedom of Information Act

(FOIA) request, shed light on the cost of this routine operation. As is shown in Ta-

ble 1 below, we calculated the average

per-well plugging cost for the 251 well

nvoices to be over \$130,000.

North Dakota boreholes not all have

been plugged. So sayeth Dick Elkins

governor lost to Art Link.

republican gubernatorial candidate to

yielded actual receipts for 251 well plugs and 128 site reclamations.

Plugging alone has averaged over \$130,000 per well. Reclamation

Key takeaways from our analysis of North Dakota data:

THE TAXPAYERS IN OIL-PRODUCING STATES.

Well Plugging Cost (thousands of \$) – 251 RECORDS

more than five years ago.

10 NORTH DAKOTA

Injection + other

TA (LP>24<60)

Zombie (LP>60

Total plugging cost in FOIA (A)

Mean pluggin cost (A/B)

Median plugging cost

\$250,000 on average.

14

Max cost

Min cost

Count of plugged wells in FOIA (B)

Well Type

Producing

Stripper

North Dakota has played word games: we don't have any orphans! Now

with an opportunity for \$90 mil federal funds we have found our orphans.

Producing - Unplugged wells with a Last Production (LP) date within the past two years and aver age daily oil and gas production equal to or greater than 15 barrels oil or 90 Mcf of natural gas. Stripper - Unplugged wells with a LP date within the past two years and average daily oil and gas

Injection + other - Unplugged injection wells and other unplugged wells with no reported oil and gas

production, including wells classified as disposal, dry hole, monitor, oberservation, other, storage

and water TA (LP>24-60) - Unplugged temporarily abandoned (TA) wells with a LP date more than two years but less than five years ago Zombie (LP>60) - Unplugged wells with a LP date

CTI Estimate

2 985

1,848

2,982

29

15

% of Total

38%

23%

38%

0%

1%

32, 878.1

251

130.6

113.7

5234

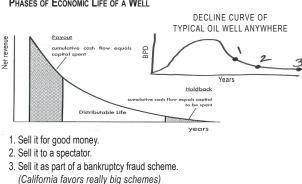
512

HISTORIC PRODUCED WATER SPILL SITE CHARACTERIZAION by Kerry Sublette - Moses of the reclaimation profession Visual inspection

- Vegetation damage
- Salt tolerant vegetation
- Salt crusts
- Sodic soils
- Erosion
- Corrosion of surface steel products
- . Geophysical survey
- EM31 or equivalent (penetrates to 15-20 ft.)
- *Soil coring for ground truthing of geophysics and depth characterization • Composite samples by depth: 0-6", 6-12", then every foot thereafter
 - Saturated paste analysis: EC, SAR, TDS, pH, B, cation/ anion balance
- Resistivity surveys for large complex sites *Penetrates to larger depths
- * Reduces soil coring requirements
- Drainage analysis
- Slope
- Stratigraphy (permeability)
- Drainage gradients
- Environmental receptors
- Threat to groundwater (relative weights shown in parentheses)
- Chloride mass (10) Aquifer thickness (7)
- Depth to groundwater (3)
- Annual precipitation (2)
- Evaporation index (2)
- Surface soil type (4)
- Slope (1)
- Vadose zone material (> 3ft.) (5)
- Aquifer hydraulic conductivity (4)
- Width of contamination perpendicular to direction of groundwater flow (3)

16 Executive Summary

When oil companies defer saving for asset retirement obligations (AROs), the liabilities accumulate. Meanwhile production, and expectations for cash flow, inherently decline. Thus, the remaining obligations become significant by comparison to projected cash flow, and, at some point while still turning a monthly profit, known liabilities exceed all projected net future cash flow. The event horizon when as asset turns into a liability can be crossed without warning and even without recognition. Further, without regulatory intervention, such properties can be transferred from owners more likely to be able to fund teh decommissioning to owners more likely to bequeath the liabilities to the public. PHASES OF ECONOMIC LIFE OF A WELL



CARBON TRACKER ANALYSIS

AND RAISING CLIMATE FEARS



eye). This month, the site has continued to leak gases, government violations show Credit Jonah M Kessel/The New York Time

gases were still spewing into the air.

investment bank Natixis, later disolved in bankruptcy court.

environmental disaster - unprofitable wells that will be abandoned or left bill for taxpayers to clean it all up.

18 **FIN Figures!**

	Either way Re	evive Deadiands				
www.revivethedeadlands.org findooley@gmail.com • Cell: 414-731-0520						
and then release the minerals and produce more Beer, Bread, and Beef.						
	WELLS	Liability Estimate				
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Stripper	5,009	\$1,174,492,632	14			
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Zombie (LP<60)	504	\$110,137,327	1			
TOTAL	30,495	\$8,166,458,789	100			



17. Carbon Tracker identifies executive rewards. **18.** Fin Figures - 4 Billon NOW! **19.** Forgot your toolbox, asshole. **20.** The Rock Pile **21.** Murphy and Marvin **22.** USA in the hole for \$287,593,723,157