

**ENERCOM**



**SAMSON**  
OIL & GAS LIMITED

**August 2016**

# Transformation in current conditions

- Small Bakken producer, 22 wells financed with RBL debt.
- Reflective of \$75/bbl oil and a \$10 million/well.
- Balance sheet stressed as WTI slid from \$100 to \$26/bbl.
- Samson recognized that there were “bargains” available.
- Challenge was finding a deal that could be financed and that “worked” at \$40 per barrel, and provided a future growth platform.

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# Conventional acquisition

- Conventional reservoirs that don't require stimulation have a capital cost advantage of at least 50% compared to a regular unconventional drill and complete.
- Large Bakken producer was divesting its conventional portfolio because it did not meet its investment thesis.
- Assets looked solid, but neglected and not a focus.
- Required a good technical understanding of the asset, due diligence and operational experience.

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# Conventional acquisition

- Bid defined by what could be bank financed at 65% of PDP value.
- Provided necessary discipline.
- Lifting cost in the vendor's hands was \$22/bbl.
- Bank debt required a lifting cost of \$12/bbl.
- Meeting the cost goal, with more to come as the asset grows.

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# Conventional acquisition

## ➤ Objective.

- 1) Competitively priced
- 2) Growth viable at \$40/bbl through work overs.
- 3) Growth viable at \$40/bbl through in fill drilling.

## ➤ Result

- 1) Purchase achieved at \$16 million versus a November 2015 PDP of \$22 million, with additional value to come as at June 30th.
- 2) June 1st PDP at \$48 million.
- 3) PUD as at June 1st at \$36 million.

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# Operational strategy

- Initial focus on PDNP program .
- Capital efficient resulting in rapid production growth.
- Production from 32 wells re-established with:
  - Tubing change outs
  - Rod replacement
  - Pump replacement
  - Surface facility repairs
- Added \$12 million in reserve value with \$0.8 million expenditure.

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# Operational strategy

- Operatorship assumed in early June 2016.
- Monthly production ahead of that change (net to Samson) was 400 BOPD.
- After change rate is 600 BOPD.
- Represents a 50% increase.

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# Debt summary

- Reserve based facility, first security debt of \$30.5m
  - Being reduced through sale of North Stockyard for \$15 million.
  - Balance will be reduced by \$11.5 million to \$19 million.
- Acquisition vendor has 10%, 1 year, second lien of \$4.0m, due April 2017.
- Conventional asset acquired for \$16m, funded in part by \$11.5m from Mutual of Omaha Bank.

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# North Stockyard sale

- Buyer executed PSA to close August 31<sup>st</sup> unless extended.
- Effective date is 1<sup>st</sup> September (or day after close).
- Terms are \$15 million in cash.
- PDP value at June 1<sup>st</sup> \$15.1 million.
- Uses of funds:
  - Paydown \$11.5 million in debt.
  - Buy out 50% of hedges for approximately \$1.3 million.
  - Retain \$2.2 million for the PDNP/PUD program.

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# Foreman Butte Project

- Consists of multiple fields producing from the Red River, Nisku, Mission Canyon, and Ratcliffe.
- Fields include:
  - Foreman Butte, Harding, Dore, Camp, Target and North Sioux Pass.
- Each field has been mapped by Samson to understand the geology, reservoir quality, productive capacity, water cut and infill development potential.
- One example is the Foreman Butte field.
- The maps that follow show these attributes and the proposed in fill development in that field.

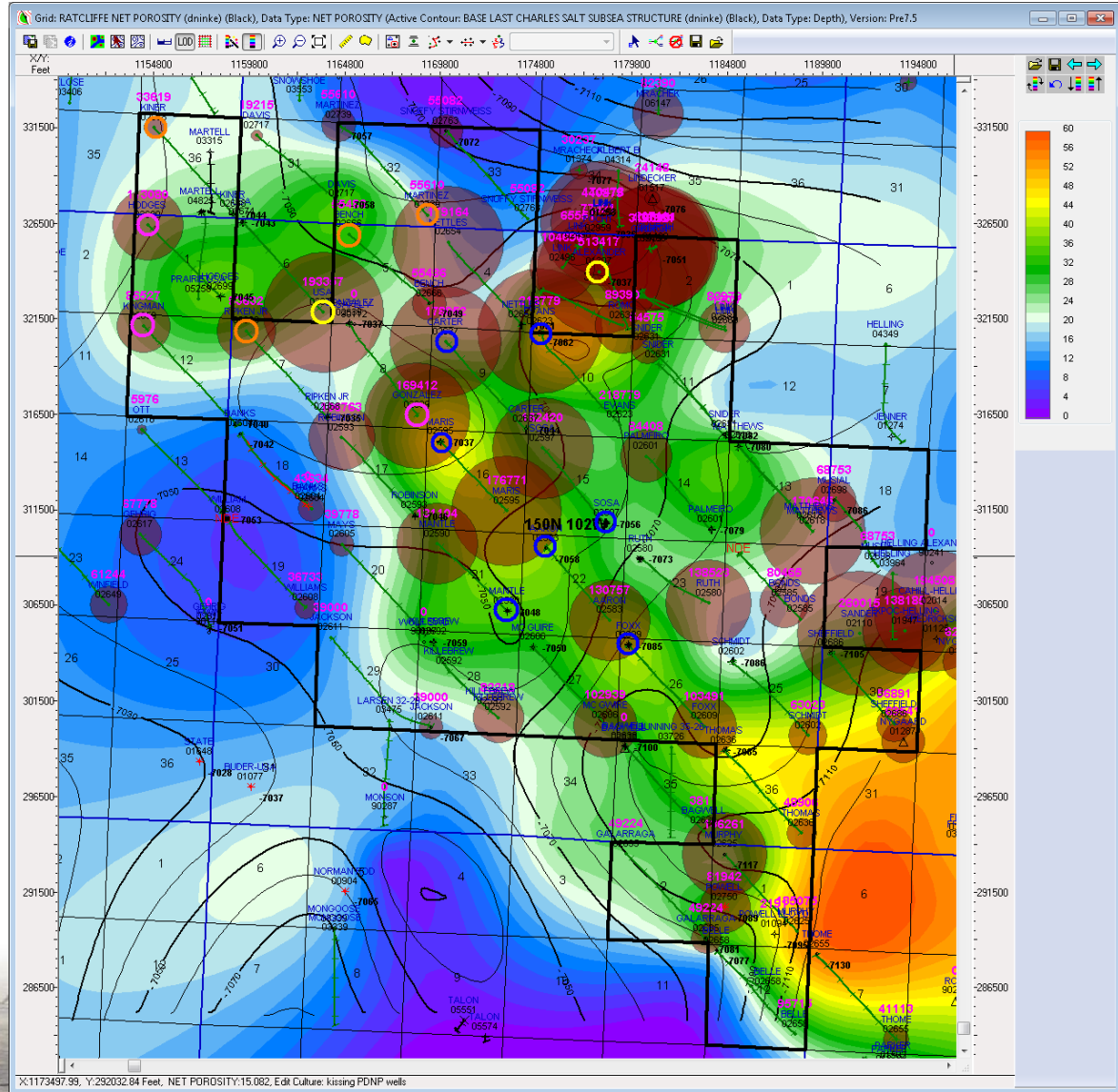
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# Foreman Butte Field

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Structure map at Ratcliffe reservoir level, (black contours) net porosity feet > 4% (coloration) and cum production (magenta bubbles).

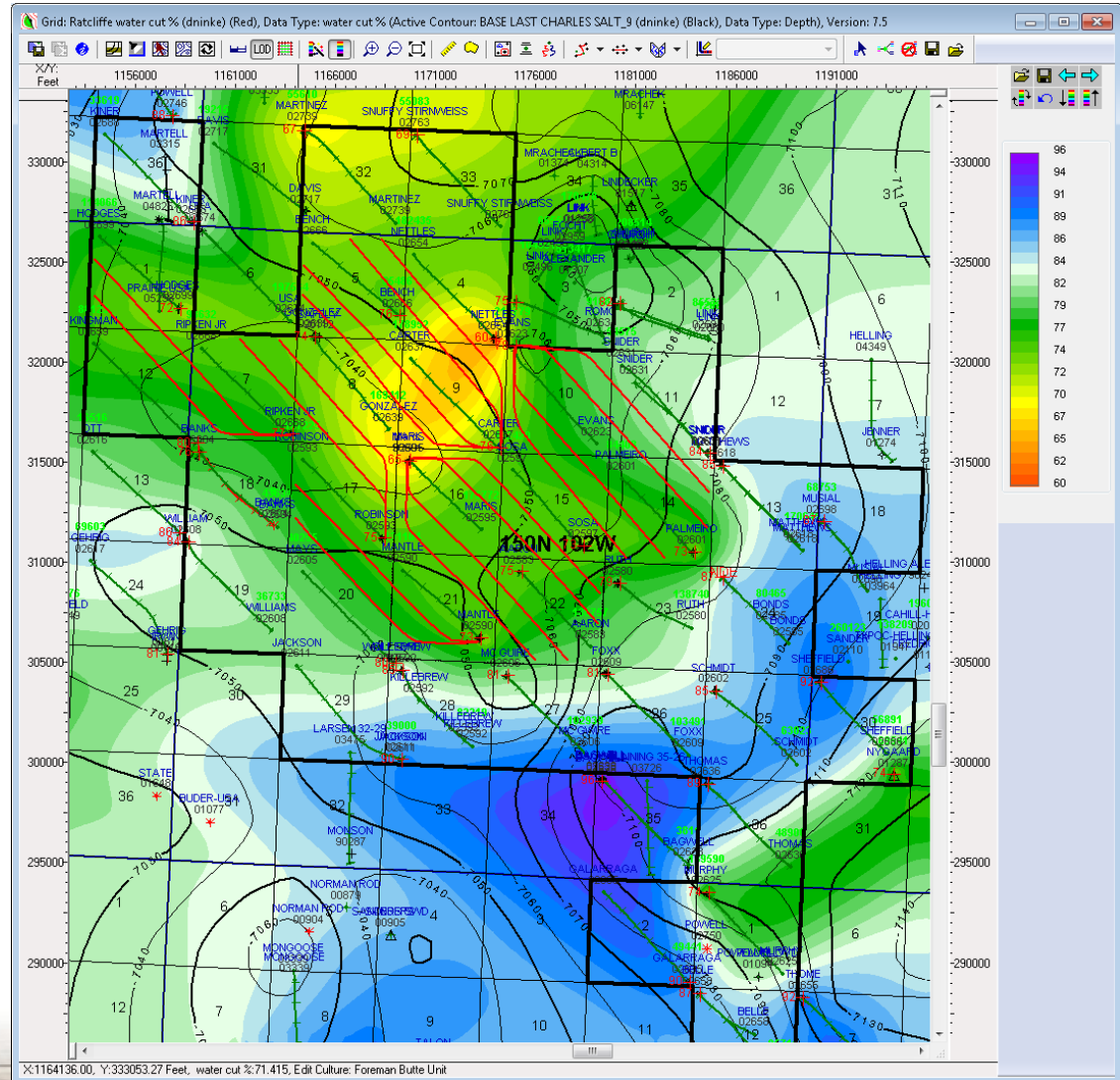


# Foreman Butte Field

- Structure map at Ratcliffe reservoir level.
- With proposed extended lateral infill development wells (9,000-12,000' lateral lengths).
- 19 PUD wells are restricted to structural high areas.

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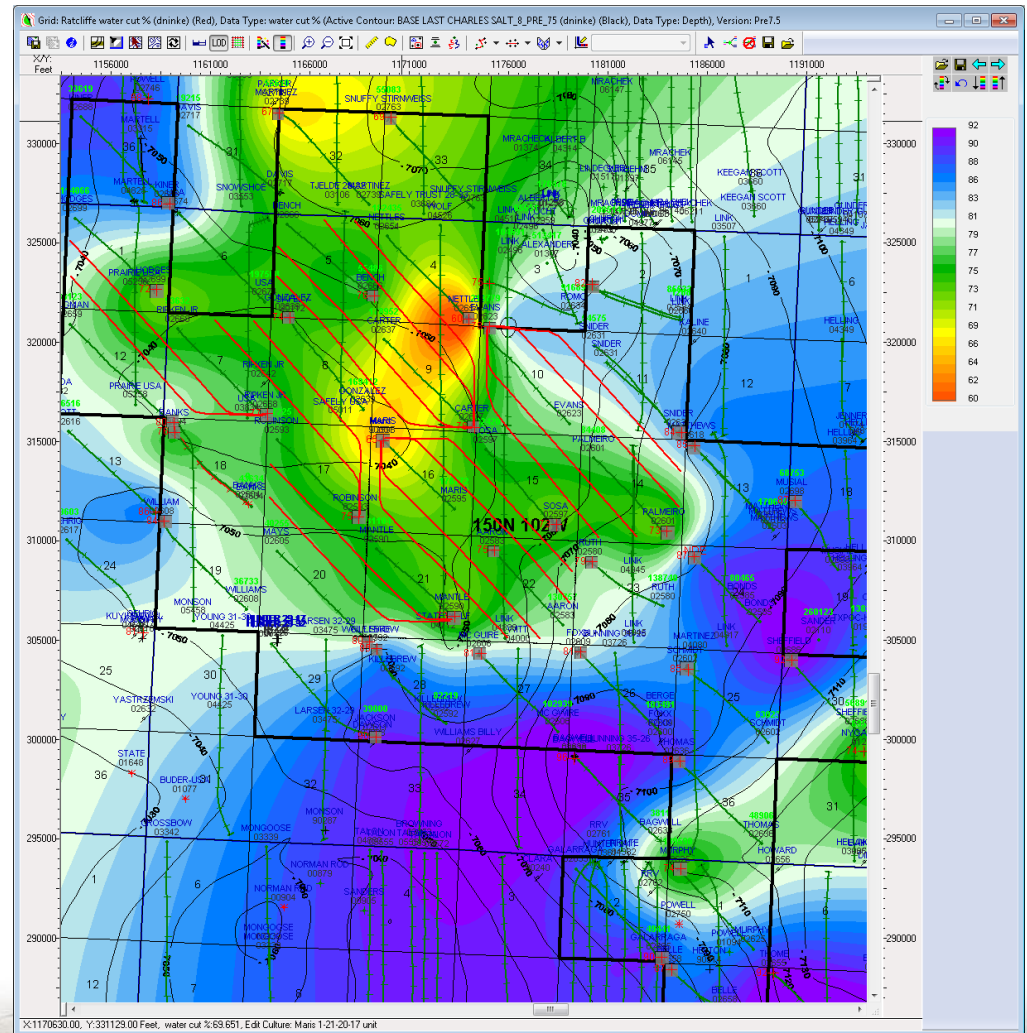
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# Foreman Butte Field

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- Historical water cut.
- With proposed infill development wells.
- PUD wells are restricted to less than 80% water cut.
- PUD EUR developed from offset well performance and lateral length and average 280,000 Bbls, and range from 195,000 to 635,000 Bbls EUR.
- PUD IP range from 260 to 460 BOPD dependent on EUR.



# Reserves as at June 1st

	OIL	GAS	BOE	NPV 10
PDP	3,698	2,650	4,140	48.091 <sup>^</sup>
PNDP	1,743	3,515	2,329	\$20.113
PUD	3,448	2,414	3,850	\$30.595
<b>TOTAL PROVED</b>	<b>8,889</b>	<b>8,579</b>	<b>10,319</b>	<b>\$50.708</b>

## Notes:

- 1) <sup>^</sup> Includes PDP of Foreman Butte of \$30.9 million.
- 2) NYMEX curve as at June 1<sup>st</sup> 2016.
- 3) Internal estimate un-audited.
- 4) PUDs restricted to 12 wells, currently 19 defined.

# Independent reserves as at June 30th

- Currently being finalized.
- WTI has shown a significant growth and should result in a substantial increase in PDP reserves.
- Workover program very effective in restoring production from 32 shut in wells which should result in a significant increase in PDP reserves.
- This program prioritized wells on a future cash flow valuation.
- Development plan finalized for in fill drilling has resulted in definition and lateral length of 19 PUD locations in Foreman Butte.

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# Future growth, fresh water cleanouts

- Utilizing existing well bores which are generally a 5,000 ft. horizontal, open hole completions.
  - Offset well evidence suggest that two relatively expensive treatments are viable.
  - Given the open hole well construction (no casing in the lateral) there is the ability for the horizontal to be blocked of the productive life.
  - One option is a fresh water clean out achieve both the removal of well bore restrictions and potential permeability enhancement.
  - 8 wells that are under performing their historical decline curve are primary targets.
  - The technique is under trial in the Foreman Butte Field.
  - Cost estimate is \$120,000.

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# Future growth, acid stimulation

- Utilizing existing well bores which are generally a 5,000 ft. horizontal, open hole completion.
  - Second option is an acid stimulation which achieves permeability enhancement through “etching” of the limestone based reservoir.
  - The technique is under trial in the Foreman Butte Field.
  - 18 producing candidates are available.
  - Cost estimate is \$500,000.

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# Future growth

## ➤ Acid stimulation

- Maris 1-16H stimulated by SLB using 8,800 bbls and acid and associated fluids in 14 separate stages.
- Pumping pressure response suggests that diversion agent was effective.
- Well commenced pumping on July 9<sup>th</sup>, recovering injected fluids, first oil appeared after recovering 4,000 barrels of water.
- First use of a new diversion agent, key ingredient developed for the forthcoming re-frack horizontal phase in the shale industry.
- Reservoir is a limestone and there are at least 18 more candidates (either or fresh water cleanouts).

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# Future growth

## ➤ Acid stimulation

- Estimated cost is \$0.5 million
- Economics look attractive
  - Reserve increment is 200,000 barrels
  - NPV<sub>10</sub> \$3.38 million
- 18 candidates for this treatment.
- Represents \$60 million in potential PDP reserve value.

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# Acid frac spread Maris 1-16H

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# Future growth

## ➤ Fresh water clean outs

- Evans 1-10 well, was cleaned out to the toe and flushed with 4,000 bbls fresh water.
- Well commenced pumping July 8<sup>th</sup>. First oil appeared after recovering 4,500 bbls of water.
- Offset wells have evidenced significant uplift in production using this treatment.
- Thesis is that the open hole completion can be subject to salt deposition and therefore plugging.
- Near well bore permeability increased due to dissolution of salt.
- 18 more candidates (either or acid jobs)

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# Future Growth

- PDNP program now into second phase.
- 8 priority wells currently shut in but economic.
- Single workover rig employed, expect 2 wells a week to be brought on line.
- Under performing wells (8) will be cleaned out.
- Following completion of the evaluation of the acid and fresh water workovers one or either technique will be used on the PDP wells.

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# NYSE listing

- NYSE determined that SSN was below compliance with negative shareholder funds recorded as at December 31 2015.
- NYSE Staff have accepted Samson's plan to regain compliance prior to September 2017.
- Requirement is to establish a minimum shareholder equity of \$6 million prior to that date.
- Conventional acquisition has been determined (yet to be audited) to be a "bargain purchase".
  - Valuation methodology delivers a profit of \$11.4 million.
  - Creates at least \$6 million of shareholder equity, resolving listing caveat.

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# Strategic thoughts

- Foreman Butte project has exceptional growth potential.
  - 20 PUD locations offsetting existing producers.
  - Development planning underway and likely to use a single vertical well bore with 4 laterals.
  - Well construction determined by high water cuts requiring higher capacity ESP's.
  - Cluster development makes water handling efficient.
- 18 acid stimulation or fresh water cleanout candidates.
- 6 up hole recompletions in the Sioux Pass Field, (only field examined for this potential.)

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# Way Forward

- Continue to exploit PDNP wells, now on the second round of workovers.
- Evaluation of initial SLB acid/frac job on the Maris well
- Evaluation of initial fresh water cleanout job on the Evans well
- Planning and approval of initial PUD locations.
- Cost control:
  - Achieved a blended \$2.15 per bbl for SWD.
  - Achieved a \$3,400 per well per month.
  - Independent roustabout crew, labor and equipment cost low.

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# Way Forward

- Aim is to maximize shareholder value.
- Solution is to develop potential of the project initially through the most capital efficient investment, PDNP wells, performance enhancement of existing well bores and infill drilling.
- Whilst maintaining a modest debt level of around 50% of PDP value. Minimizes the financing cost and risks
- Whilst minimizing shareholder dilution.

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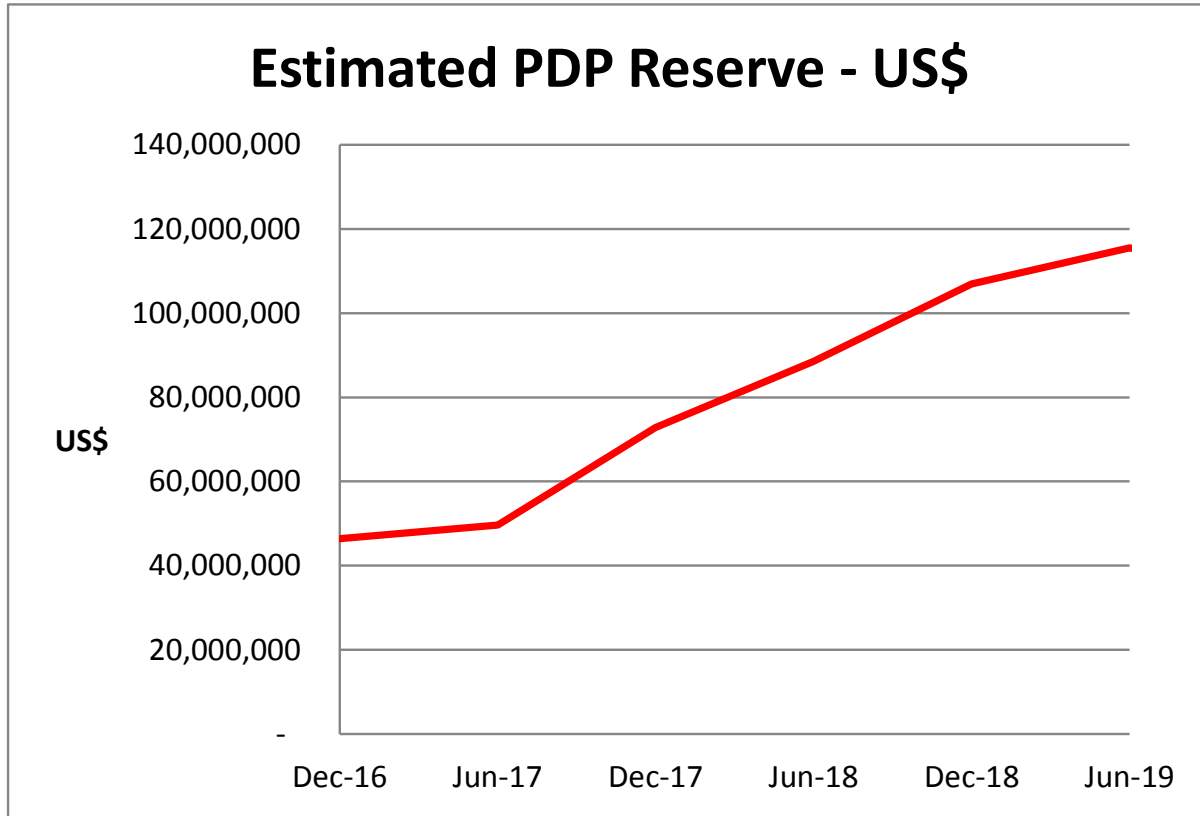
# Way Forward

- Several scenarios examined.
- Valuation methodology uses the sum of cash, PDP and debt at the end of each 6 month period divided by the shares on issue.
- Preferred outcome delivers the best share price at the end of the forecast period in June 2020.
- Delivers acceptable debt covenants.

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# Way Forward



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- Converts 20 PUDs to PDP
- Additional PUD locations to be defined.
- Doesn't include any production enhancement from acid or fresh water cleanouts.
- NPV<sub>10</sub> at the current WTI strip

# Summary

- Samson survived the downturn as is prospering.
- Acquired an asset that is responding in value creation.
- Balance sheet restoration through:
  - An asset sale and
  - Asset growth in low oil priced environment.
- Early days in terms of delivering but so far have achieved:
  - 1) Lower lifting cost.
  - 2) Efficient capital spend to generate PDP growth.
  - 3) Trialing two proven enhancement techniques.
  - 4) Developed infill drilling pattern to deliver exceptional reserve and production growth.

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