

**RESERVE AND ECONOMIC EVALUATION  
OIL PROPERTY**

**LAK RANCH NEWCASTLE  
WYOMING, USA**

**Owned by**

**MAHA ENERGY (US) INC.**

**November 30, 2016  
(December 1, 2016)**

# **Chapman** Petroleum Engineering Ltd.

1122 - 4th Street S.W., Suite 700, Calgary, Alberta T2R 1M1 • Phone: (403) 266-4141 • Fax: (403) 266-4259 • www.chapeng.ab.ca

December 30, 2016

**Maha Energy (US) Inc.**  
1140, 10201 Southport Rd. SW  
Calgary, AB  
T2W 4X9

**Attention: Mr. Jonas Lindvall**

Dear Sir:

**Re: Reserve and Economic Evaluation – Maha Energy (US) Inc.**  
**LAK Ranch, Wyoming, USA – November 30, 2016**

In accordance with your authorization we have performed a reserve and economic evaluation of an oil property located in Wyoming, USA, owned by Maha Energy (US) Inc. (the "Company") for an effective date of November 30, 2016 (as of December 1, 2016).

This evaluation has been carried out in accordance with standards set out in the Canadian Oil and Gas Evaluation Handbook ("COGEH"), compliant with the NI 51-101 standards and the professional practice standard under our Permit to Practice with APEGA. The report has been prepared and/or supervised by a "Qualified Reserves Evaluator" as demonstrated on the accompanying Certificate of Qualification of the author(s).

The INTRODUCTION contains the authorization and purpose of the report and describes the methodology and economic parameters used in the preparation of this report.

The SUMMARY OF RESERVES AND ECONOMICS includes values at the property level and the consolidated cash flows for each accumulating reserve category for Forecast Prices and. The Forecast Prices of our benchmark products are also presented in Attachment 1 to the Scope of Report. The net present values presented in this report do not necessarily represent the fair market value of the reserves evaluated in this report. All monetary values presented in this report are expressed in terms of US dollars.

The DISCUSSION contains a description of the interests and burdens, reserves and geology, production forecasts, product prices, capital and operating costs and a map of each major property. The economic results and cash flow forecasts (before income tax) are also presented on an entity and property summary level.



**CERTIFICATE OF QUALIFICATION**

I, C. W. CHAPMAN, P. Eng., Professional Engineer of the City of Calgary, Alberta, Canada, officing at Suite 700, 1122 – 4<sup>th</sup> Street S.W., hereby certify:

1. THAT I am a registered Professional Engineer in the Province of Alberta and a member of the Australasian Institute of Mining and Metallurgy.
2. THAT I graduated from the University of Alberta with a Bachelor of Science degree in Mechanical Engineering in 1971.
3. THAT I have been employed in the petroleum industry since graduation by various companies and have been directly involved in reservoir engineering, petrophysics, operations, and evaluations during that time.
4. THAT I have in excess of 25 years in the conduct of evaluation and engineering studies relating to oil & gas fields in Canada and around the world.
5. THAT I participated directly in the evaluation of these assets and properties and preparation of this report for Maha Energy (US) Inc., dated December 30, 2016 and the parameters and conditions employed in this evaluation were examined by me and adopted as representative and appropriate in establishing the value of these oil and gas properties according to the information available to date.
6. THAT I have not, nor do I expect to receive, any direct or indirect interest in the properties or securities of Maha Energy (US) Inc., its participants or any affiliate thereof.
7. THAT I have not examined all of the documents pertaining to the ownership and agreements referred to in this report, or the chain of Title for the oil and gas properties discussed.
8. A personal field examination of these properties was considered to be unnecessary because the data available from the Company's records and public sources was satisfactory for our purposes.

[Original Signed By:]

C.W. Chapman

C.W. Chapman, P.Eng.  
President

<b>PERMIT TO PRACTICE</b>	
<b>CHAPMAN PETROLEUM ENGINEERING LTD.</b>	
[Original Signed By:]	
Signature	<u>C.W. Chapman</u>
Date	<u>January 12, 2017</u>
<b>PERMIT NUMBER: P 4201</b>	
The Association of Professional Engineers and Geoscientists of Alberta	

## CERTIFICATE OF QUALIFICATION

I, D. J. BRIERE, P. Eng., Professional Engineer of the City of Calgary, Alberta, Canada, officing at Suite 700, 1122 – 4<sup>th</sup> Street S.W., hereby certify:

1. THAT I am a registered Professional Engineer in the Province of Alberta.
2. THAT I graduated from the University of Calgary with a Bachelor of Science degree in Electrical Engineering in 1978.
3. THAT I have been employed in the petroleum industry since graduation by various companies and have been directly involved in reservoir engineering, petrophysics, operations, and evaluations during that time.
4. THAT I have over 30 years of experience in engineering studies relating to oil & gas fields in Canada and around the world.
5. THAT I participated directly in the evaluation of these assets and properties and preparation of this report for Maha Energy (US) Inc., dated December 30, 2016 and the parameters and conditions employed in this evaluation were examined by me and adopted as representative and appropriate in establishing the value of these oil and gas properties according to the information available to date.
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8. A personal field examination of these properties was considered to be unnecessary because the data available from the Company's records and public sources was satisfactory for our purposes.

[Original Signed By:]

D.J. Brière

D.J. Brière, P.Eng.  
General Manager International

## CERTIFICATE OF QUALIFICATION

I, Klorinda Kaci, of the city of Calgary, Alberta, Canada officing at Suite 700, 1122 – 4<sup>th</sup> Street S.W., Calgary, Alberta hereby certify:

1. THAT I am a member of Society of Petroleum Engineers.
2. THAT I hold a Bachelor of Applied Technology in Petroleum Engineering from Southern Alberta Institute of Technology (SAIT) in Calgary (June 2009). I hold a Bachelor of Science degree in Civil Engineering from Tirana University of Albania 1989.
3. THAT I have been employed in the petroleum industry from 1994 to 2000 in Albania, and from January 2008 to the present time in Calgary.
4. THAT I participated directly in the evaluation of these assets and properties and preparation of this report for Maha Energy (US) Inc., dated December 30, 2016 and the parameters and conditions employed in this evaluation were examined by me and adopted as representative and appropriate in establishing the value of these oil and gas properties according to the information available to date.
5. THAT I have not, nor do I expect to receive, any direct or indirect interest in the properties or securities of Maha Energy (US) Inc, its participants or any affiliate thereof.
6. THAT I have not examined all of the documents pertaining to the ownership and agreements referred to in this report, or the chain of Title for the oil and gas properties discussed.
7. A personal field examination of these properties was considered to be unnecessary because the data available from the Company's records and public sources was satisfactory for our purposes.

[Original Signed By:]

Klorinda Kaci

Klorinda Kaci, B.Sc., B.A.Tech.,  
Economics Coordinator / Technical Assistant

**RESERVE AND ECONOMIC EVALUATION  
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**LAK RANCH NEWCASTLE  
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## INTRODUCTION

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## INTRODUCTION

### 1. AUTHORIZATION

This evaluation has been authorized by Mr. Jonas Lindvall, on behalf of Maha Energy (US) Inc. The engineering analysis has been performed during the month of December 2016.

### 2. PURPOSE OF THE REPORT

The purpose of this report was to prepare a third party independent appraisal of the oil reserves owned by Maha Energy (US) Inc. for the Company's financial planning.

The values in this report do not include the value of the Company's undeveloped land holdings nor the tangible value of their interest in associated plant and well site facilities they may own.

### 3. USE OF THE REPORT

The report is intended to support a filing on the Stockholm Stock Exchange, and for annual corporate requirements and financial planning.

### 4. SCOPE OF THE REPORT

#### 4.1 Methodology

The evaluation of the reserves and resources of these properties included in the report has been conducted under a discounted cash flow analysis of estimated future net revenue, which is the principal tool for estimating oil and gas property values and supporting capital investment decisions.

#### 4.2 Land Survey System

The Public Land Survey System (PLSS) is a way of subdividing and describing land in the United States. All lands in the public domain are subject to subdivision by this rectangular system of surveys, which is regulated by the U.S. Department of the Interior, Bureau of Land Management (BLM).

The PLSS typically divides land into 6-mile-square townships, which is the level of information included in the National Atlas. Townships are subdivided into 36 one-mile-square sections. Sections can be further subdivided into quarter sections, quarter-quarter sections, or irregular government lots.

Each township is identified with a township and range designation. Township designations indicate the location north or south of the baseline, and range designations indicate the location east or west of the Principal Meridian. For example, a township might be identified as Township 7 North, Range 2 West, which would mean that it was in the 7th tier of townships north of a baseline, and in the 2nd column of townships west of a principal meridian. A legal land description of a section includes the State, Principal Meridian name, Township and Range designations with directions, and the section number: for example, Nebraska, Sixth Principal Meridian T7N, R2W, Sec 5.

#### 4.3 **Economics**

The results of the before tax economic analysis, which are presented for each entity and property summary, are in a condensed form presented on one page for simplicity in analyzing the cash flows, however, if for any reason more extensive breakdown of the cash flow is required, a separate schedule can be provided showing the full derivation and breakdown of any or all of the columns on the summary page.

The economic presentation shows the gross property and company gross and net (before and after royalty) production of oil, gas and each NGL product along with the product prices adjusted for oil quality and heating value of gas. Oil prices also include the deduction for trucking costs where applicable for royalty deductions.

The second level includes the revenues, royalties, operating costs, processing income, abandonment costs, capital and cash flow of the property. Royalty values shown here are after the reimbursement to the Company of the Gas Cost Allowance (GCA). Operating costs are presented for the gross property and the company share, split between variable and fixed costs, and the effective cost per BOE.

Net revenues are presented annually and as a net back in \$/BOE @ 6 Mscf/STB. Revenue from custom processing of oil or gas is presented separately.

The third level of data presents the cumulative cash flow values (present worth) for various discount rates. Also, the net cash flow breakdown is presented. The project profitability criteria are summarized on the bottom right of the page. These data are not relevant in the case of corporate evaluations but are useful in assessing individual capital projects.

For corporate consolidations a second page is included, which repeats the before tax cash flow and presents the Taxable Income, Income Tax Payable, After Income Tax Cash Flows and net present values After Income Tax.

#### 4.4 **Barrels of Oil Equivalent**

If at any time in this report reference is made to "Barrels of Oil Equivalent" (BOE), the conversion used is 6 Mscf : 1 STB (6 Mcf : 1 bbl).

BOEs may be misleading, particularly if used in isolation. A BOE conversion ratio of 6 Mcf : 1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent value equivalency at the well head.

#### 4.5 **Environmental Liabilities**

We have been advised by the Company that they are in material compliance with all Environmental Laws and do not have any Environmental Claims pending, as demonstrated in the Representation Letter attached.

### 5. BASIS OF REPORT

#### 5.1 **Sources of Information**

Source of the data used in the preparation of this report are as follows:

- i) Ownership and Burdens have been derived from the Company's land records and other information from the Company as required for clarification;
- ii) Existing well production data is provided by the Company, and their water flood forecasts are derived from the RPS study;
- iii) Well data is accessed from the Company's well files and from public data sources;

- iv) Operating Costs are based on actual revenue and expense statements provided by the Company for established properties or from discussions with the Company and our experience in the area for new or non-producing properties;
- v) Price differentials are derived from revenue statements, compared to actual posted prices for the appropriate benchmark price over a period of several months for established properties or from discussions with the Company and our experience in the area for new or non-producing properties;
- vi) Timing of Development Plans and Capital estimates are based on discussions with the Company together with our experience and judgment.

## 5.2 **Product Prices**

Chapman Petroleum Engineering Ltd. conducts continual surveillance and monitoring on a number of Benchmark product prices both locally and internationally. Based on historical data, current conditions and our view of the relevant political and economic trends, we independently prepare oil, gas and by-product price forecasts including predictions for the near term (first few years) with escalation thereafter for a maximum of 15 years, after which prices are held constant.

In establishing our forecasts we also consider input from operating companies, consulting firms, oil & gas marketing companies and financial institutions. Our forecasts are updated quarterly and the latest one prior to the effective date would generally be used. The forecast used for this report is presented as Attachment 1 at the end of this Introduction.

Any prices quoted in the property discussions reflect fully adjusted prices for crude quality, transportation, gas heating value and specific contractual arrangements. In the case of delayed production the equivalent 2016 price for that production has been quoted.

## 5.3 **Product Sales Arrangement**

The Company does not have any "hedge" contracts in place at this time.

## 5.4 **Royalties**

Freehold royalties, mineral taxes, gross overriding royalties and any other burdens have been accounted for as seen in Table 1.

### 5.5 Capital Expenditures and Operating Costs

Operating costs and capital expenditures have been based on historical experience and analogy where necessary and are expressed in current year dollars and escalated as follows:

2016	- No Escalation
2017-2031	- 2.0% per year on price
Thereafter	- No Escalation

### 5.6 Income Tax Parameters

Net cash flows after consideration of corporate income tax have been included in this report.

The estimated balances of the existing tax pools at November 30, 2016, as provided by the Company, are summarized below:

	<u>\$USD</u>
Non Capital Losses	11,112,338
Tangible asset depreciation	572,000
Acquisition cost depletion	<u>5,557,132</u>
Total	17,241,470

Future capital expenditures anticipated for this report are predominantly development costs, and have been included as tangible or intangible costs.

The United States Federal tax rates utilized in this report were 34.00% in 2017 and thereafter.

### 5.7 Abandonment and Restoration

Abandonment and restoration costs, net of salvage, have been included in the cash flows for the final event of any particular well. The abandonment cost does not impact the economic limit and is included in the final year of production.

## 6. EVALUATION STANDARD USED

### 6.1 General

This evaluation and report preparation have been carried out in accordance with standards set out in the APEGA professional practice standard "The Canadian Oil and Gas Evaluation Handbook" ("COGEH"), in conjunction with COGEH definitions are presented below and are generally compliant with PRMS standards.

### 6.2 Reserve Definitions

The following definitions, extracted from Section 5.4 of the Canadian Oil and Gas Evaluation Handbook, Volume 1 – Second Edition (COGEH-1) published by the Petroleum Society of CIM and the Calgary Chapter of the Society of Petroleum Evaluation Engineers (SPEE) as specified by NI 51-101 have been used in preparing this report. These definitions are compliant with the PRMS.

#### DEFINITIONS OF RESERVES

The following definitions and guidelines are designed to assist evaluators in making reserves estimates on a reasonably consistent basis, and assist users of evaluation reports in understanding what such reports contain and, if necessary, in judging whether evaluators have followed generally accepted standards.

The guidelines outline

- General criteria for classifying reserves,
- Procedures and methods for estimating reserves,
- Confidence levels of individual entity and aggregate reserves estimates,
- Verification and testing of reserves estimates.

The determination of oil and gas reserves involves the preparation of estimates that have an inherent degree of associated uncertainty. Categories of proved, probable, and possible reserves have been established to reflect the level of these uncertainties and to provide an indication of the probability of recovery.

The estimation and classification of reserves requires the application of professional judgement combined with geological and engineering knowledge to assess whether or not specific reserves classification criteria have been satisfied. Knowledge of concepts including uncertainty and risk, probability and statistics, and deterministic and probabilistic estimation methods is required to properly use and apply reserves definitions. The concepts are presented and discussed in greater detail within the guidelines of Section 5.5 of the Canadian Oil and Gas Evaluation Handbook, Volume 1 – Second Edition (COGEH-1).

The following definitions apply to both estimates of individual Reserves Entities and the aggregate of reserves for multiple entities.

### RESERVES CATEGORIES

Reserves are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on

- Analysis of drilling, geological, geophysical, and engineering data;
- The use of established technology;
- Specified economic conditions, which are generally accepted as being reasonable, and shall be disclosed.

Reserves are classified according to the degree of certainty associated with the estimates.

- a. Proved Reserves are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.
- b. Probable Reserves are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved + probable reserves.
- c. Possible Reserves are those additional reserves that are less certain to be recovered than probable reserves. It is unlikely that the actual remaining quantities recovered will exceed the sum of the estimated proved + probable + possible reserves.



Other criteria that must also be met for the categorization of reserves are provided in Section 5.5.4 of the Canadian Oil and Gas Evaluation Handbook, Volume 1 – Second Edition (COGEH-1).

#### DEVELOPMENT AND PRODUCTION STATUS

Each of the reserves categories (proved, probable and possible) may be divided into developed and undeveloped categories.

- a. Developed Reserves are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (e.g., when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing.

Developed Producing Reserves are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.

Developed Non-Producing Reserves are those reserves that either have not been on production, or have previously been on production, but are shut-in and the date of resumption of production is unknown.

- b. Undeveloped Reserves are those reserves expected to be recovered from known accumulations where a significant expenditure (e.g., when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves classification (proved, probable, possible) to which they are assigned.

In multi-well pools, it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to sub-divide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

## LEVELS OF CERTAINTY FOR REPORTED RESERVES

The qualitative certainty levels contained in the definitions in Section 5.4.1 are applicable to “individual reserves entities,” which refers to the lowest level at which reserves calculations are performed, and to “reported reserves,” which refers to the highest level sum of individual entity estimates for which reserves estimates are presented. Reported reserves should target the following levels of certainty under a specific set of economic conditions:

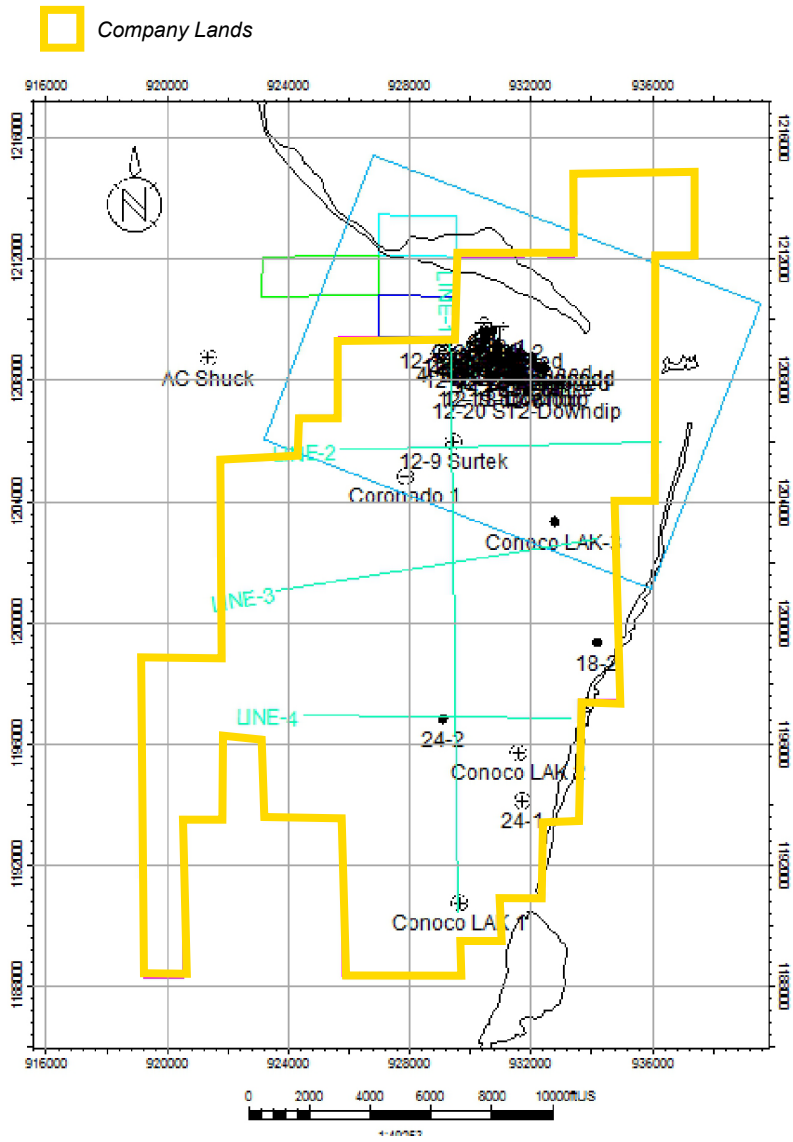
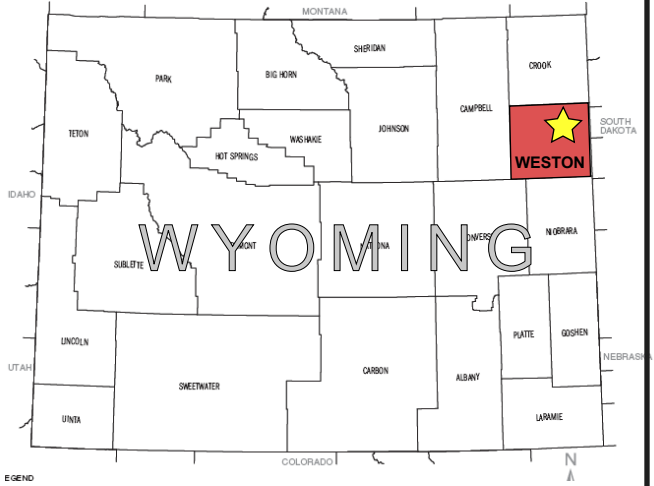
- At least a 90 percent probability that the quantities actually recovered will equal or exceed the estimated proved reserves,
- At least a 50 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable reserves,
- At least a 10 percent probability that the quantities actually recovered will equal or exceed the sum of the estimated proved + probable + possible reserves.

A quantitative measure of the certainty levels pertaining to estimates prepared for the various reserves categories is desirable to provide a clearer understanding of the associated risks and uncertainties. However, the majority of reserves estimates are prepared using deterministic methods that do not provide a mathematically derived quantitative measure of probability. In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods.

Additional clarification of certainty levels associated with reserves estimates and the effect of aggregation is provided in Section 5.5.3 of the Canadian Oil and Gas Evaluation Handbook, Volume 1 – Second Edition (COGEH-1).

## **7. SITE VISIT**

A personal field examination of these properties was not considered to be necessary because the data available from the Company's records and public sources was satisfactory for our purposes.



**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**

WESTON COUNTY, WYOMING, U.S.A.

**ORIENTATION MAP**

DEC. 2016      JOB No. 6277

## Attachment 1

**CHAPMAN PETROLEUM ENGINEERING LTD.**  
**CRUDE OIL**  
**HISTORICAL, CONSTANT, CURRENT AND FUTURE PRICES**

December 1, 2016

Date	WTI [1] \$US/STB	Brent Spot (ICE)[2] \$US/STB	AB Synthetic Crude Price [3] \$CDN/STB	Western Canada Select [4] \$CDN/STB	Exchange Rate \$US/\$CDN
<b>HISTORICAL PRICES</b>					
2009	61.95	61.74	76.77	53.04	0.88
2010	79.48	79.61	80.56	66.58	0.97
2011	94.88	111.26	102.45	77.43	1.01
2012	94.05	111.63	92.56	71.70	1.00
2013	97.98	108.56	100.17	75.76	0.97
2014	93.12	99.43	101.07	82.07	0.91
2015	48.69	53.32	62.17	46.23	0.78
2016 11 mos	42.41	44.20	57.19	38.07	0.76
<b>CONSTANT PRICES (The average of the first-day-of-the-month price for the preceding 12 months-SEC)</b>					
	41.95	43.69	56.40	37.18	0.75
<b>FORECAST PRICES</b>					
2016 1 mo	50.00	52.50	68.16	44.30	0.75
2017	55.00	57.75	70.24	45.66	0.80
2018	65.00	68.25	79.80	51.87	0.83
2019	70.00	73.50	85.83	55.79	0.83
2020	75.00	78.75	89.73	58.32	0.85
2021	78.00	81.90	93.25	60.62	0.85
2022	81.00	85.05	96.78	62.91	0.85
2023	82.00	86.10	97.96	63.67	0.85
2024	83.64	87.82	99.89	64.93	0.85
2025	85.31	89.58	101.86	66.21	0.85
2026	87.02	91.37	103.87	67.51	0.85
2027	88.76	93.20	105.91	68.84	0.85
2028	90.53	95.06	108.00	70.20	0.85
2029	92.35	96.96	110.13	71.59	0.85
2030	94.19	98.90	112.30	73.00	0.85
2031	96.08	100.88	114.52	74.44	0.85

**Constant thereafter**

- Notes:
- [1] West Texas Intermediate quality (D2/S2) crude (40API) landed in Cushing, Oklahoma.
  - [2] The Brent Spot price is estimated based on historic data.
  - [3] Equivalent price for Light Sweet Crude (D2/S2) & Synthetic Crude landed in Edmonton.
  - [4] Western Canada Select (20.5API), spot price for B.C., Alberta, Saskatchewan, and Manitoba.

**LAK RANCH HEAVY OIL  
WESTON COUNTY, NEWCASTLE USA  
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**Discussion**

Property Description  
Geology  
Reserves  
Production  
Product Prices  
Capital Expenditures  
Operating Costs  
Economics

**Attachments**

Figure 1: Land and Well Map

Table 1: Schedule of Lands, Interests and Royalty Burdens

Figure 2: Geological Maps and Figures

- a) Stratigraphic Column
- b) Regional Geology
- c) Lower Newcastle Structure
- d) Surtek LAK 12-9 Log Analysis – Newcastle

Table 2: Summary of Gross Reserves

Summary of Reserves and Reservoir Parameters

Probable

- a) Water Flood Probable Production

Possible

- b) Upper Newcastle
- c) Middle Newcastle
- d) Lower Newcastle

Figure 3: Production History Graphs

- a) All Oil Producing Wells, Lower Newcastle, Rate vs. Time Plot
- b) All Oil Producing Wells, Lower Newcastle, Rate vs. Cum. Production Plot
- c) Well 12-18, Newcastle, Rate vs. Time Plot
- d) Well LAK RANCH 12-19, Newcastle, Rate vs. Time Plot
- e) Well LAK RANCH 12-21, Newcastle, Rate vs. Time Plot
- f) Well LAK RANCH 12-23, Newcastle, Rate vs. Time Plot
- g) Well LAK 12-26H, Newcastle, Rate vs. Time Plot
- h) Well DEREK H 1-PH, Newcastle, Rate vs. Time Plot

Table 3: Summary of Anticipated Capital Expenditures

- a) Development
- b) Abandonment and Restoration

Table 4: Economic Summary

Table 4T: Economic Summary after Income Tax

Consolidated Cash Flows

- a) 6 Producing Well, Newcastle – Proved Developed Producing
- b) Maha Energy (US) Inc. – Total Proved Plus Probable
- c) Maha Energy (US) Inc. – Total Proved Plus Probable Plus Possible

Individual Cash Flows

Probable

- c) 90 locations, Newcastle

Possible

- d) 100 locations, Upper & Middle Newcastle

Appendix A – Analog Analysis

**LAK RANCH HEAVY OIL  
WESTON COUNTY, NEWCASTLE USA  
DISCUSSION**

**Property Description**

Maha Energy (US) Inc. (the "Company") is a private Alberta based exploration and production company with opportunities in conventional oil and gas plays in North America, including the LAK Ranch heavy oil field in Weston County, Newcastle Wyoming, as shown on the map illustrated in Figure 1.

The Company is the 100 percent owner and the operator of the LAK Ranch heavy oil field.

The LAK Ranch heavy oil field is currently in the development stages of the Phase III period of production. Production is subject to a 14.06% royalty tax, and 12.97% Freehold royalties.

Details are presented in Table 1.

**Geology**

LAK Ranch is producing from the Lower to Middle Cretaceous section of the Powder River Basin<sup>1</sup> as seen in the Stratigraphic Column of Figure 2a. The main reservoir units are the Newcastle Formation, consisting of medium to coarse-grained feldspathic sandstones and silts, and mudstones, deposited with a strong northeast-southwest trend in the study area as shown in the Regional Geology of Figure 2b.

The prospective Newcastle sands lie at depths from 0-2800 feet true vertical depths. The structural configuration of the reservoir throughout the prospect is that of a syncline plunging to the west-southwest. The Newcastle formation is comprised of a lower and middle sand interval of channel fill and alluvial plain deposits as seen on Figure 2c: Lower Newcastle Structure, and a transgressive marine sand unit as the Upper Newcastle sand. The sands are lensoid and highly variable. Maximum thickness of the Newcastle formation is approximately 100 feet.

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<sup>1</sup> A report to Maha Energy Inc. RPS Knowledge Reservoir, July 3 2014

## **Reserves**

Total proved developed producing heavy oil reserves of 40 MSTB have been estimated for the Phase III Lower Newcastle zone in six existing wells based on a conservative interpretation of the decline analysis of the group pumping production performance after workover.

Total probable heavy oil reserves of 13,211 MSTB as shown in Table 2a have been estimated for 90 new producing wells based on an RPS water flood simulation study of production performance in an area containing eight phases and supported by a conventional water flood analog field as seen in Appendix A.

Total possible heavy oil reserves of 5,424 MSTB have been estimated for 100 locations from a combination of Upper, Middle, and Lower Newcastle production within the planned area and an increased acreage outside of this planned area down to the current lowest known hydrocarbons as presented in Tables 2b, 2c, and 2d.

## **Production**

Workovers have been performed in all six existing wells to bring their average daily rate to 11 STB/d in the Proved case. The hot water flood has been started on September 24, 2016 for these six existing Proved case wells.

Production history graphs for all existing Company wells are shown on Figures 3c through 3h for the Proved case.

Production from Phase 3 new drill Probable case is expected to follow the RPS simulation's forecast throughout the water flood until the water cut limits are reached.

## **Product Prices**

Product price forecasts of \$45.50/STB are based on WTI (\$50.00/STB) minus a \$4.50/STB discount as per existing market conditions.



## **Capital Expenditures**

It has been estimated that the total capital cost of the LAK Ranch heavy oil field is \$106,560,000 USD (\$106,560,000 net to the Company) for Phases 3 to 10, as shown in Table 3a. The capital to exploit the Possible reserves is estimated to be \$14,817,000 USD (\$14,817,000 net to the Company). Total capital costs are therefore \$121,377 USD (\$121,377 USD net to the Company).

Well abandonment and restoration costs for Phases 3 to 10 have been estimated to be \$2,025,000 USD (\$2,025,000 net to the Company) to abandon the wells, subsurface facilities, and facilities as shown in Table 3b. The abandonment and restoration costs for the Possible reserves case is \$225,000 USD (\$225,000 USD net to the Company). Total abandonment costs are therefore \$2,250,000 USD (\$2,250,000 USD net to the Company).

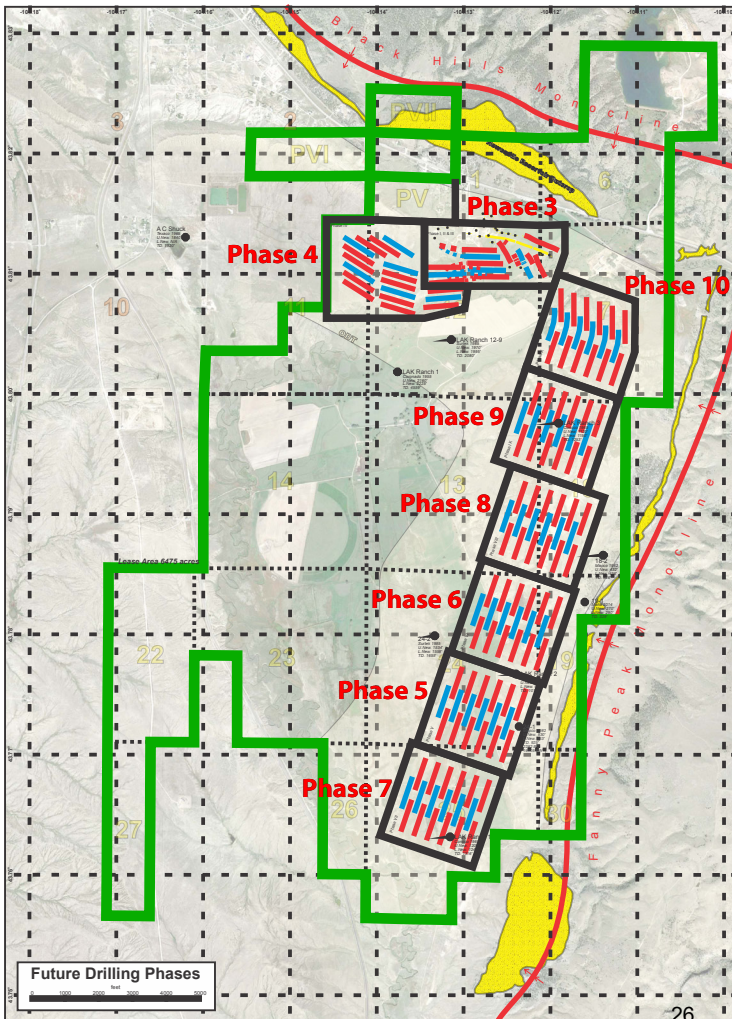
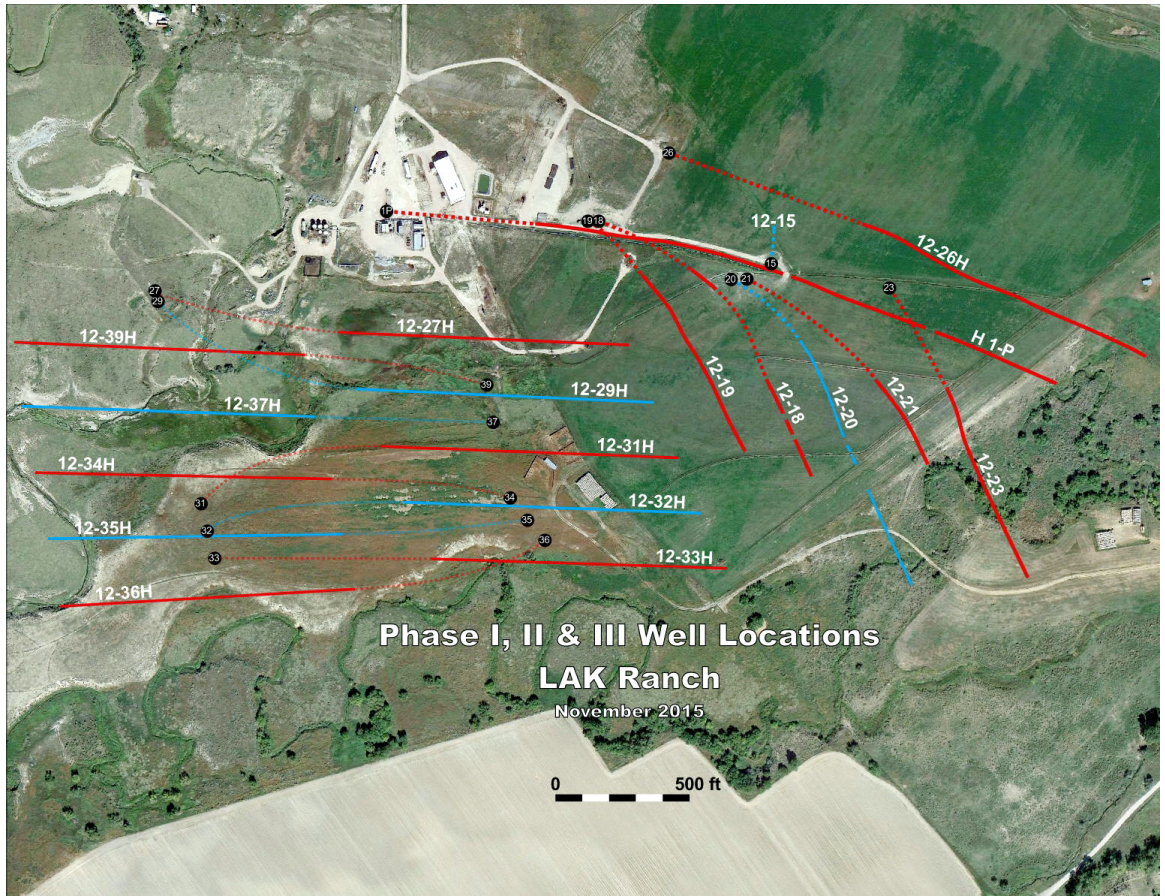
## **Operating Costs**

The LAK Ranch heavy oil field is located in Weston County Wyoming, where a natural gas supply, water, and an oil refinery are all readily available nearby. There has been legacy drilling in the area, and infrastructure for the heavy oil industry has existed for a long time and continues to improve.

It has been estimated that the fixed operating costs per well per month for the field's water flood operation is \$2,201/well/month USD which includes the burning of natural gas fuel in the steamers for heating the injection water to 200°F. The per-unit variable operating costs are estimated to be \$7.73/STB USD.

## **Economics**

An economic summary is presented in Table 4, and the results of our economic analysis are presented in Tables 4a through 4e.



- Company Lands
- Producing Well
- Injector Well

**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**

WESTON COUNTY, WYOMING, U.S.A.

**LAND AND WELL MAP**

DEC. 2016      JOB No. 6277      FIGURE No. 1

Table 1

Schedule of Lands, Interests and Royalty Burdens  
December 1, 2016

MAHA Energy Inc.

LAK Ranch Heavy Oil Field, Wyoming USA

Description	Rights Owned	Gross Acres	Appraised Interest		Royalty Burdens	
			Working %	Royalty %	Basic %	Overriding %
LAK Ranch	[A]	6,475	100.0000	-	14.0569	[2] 12.9699 [3]
	<b>Total</b>	<b>6,475</b>				

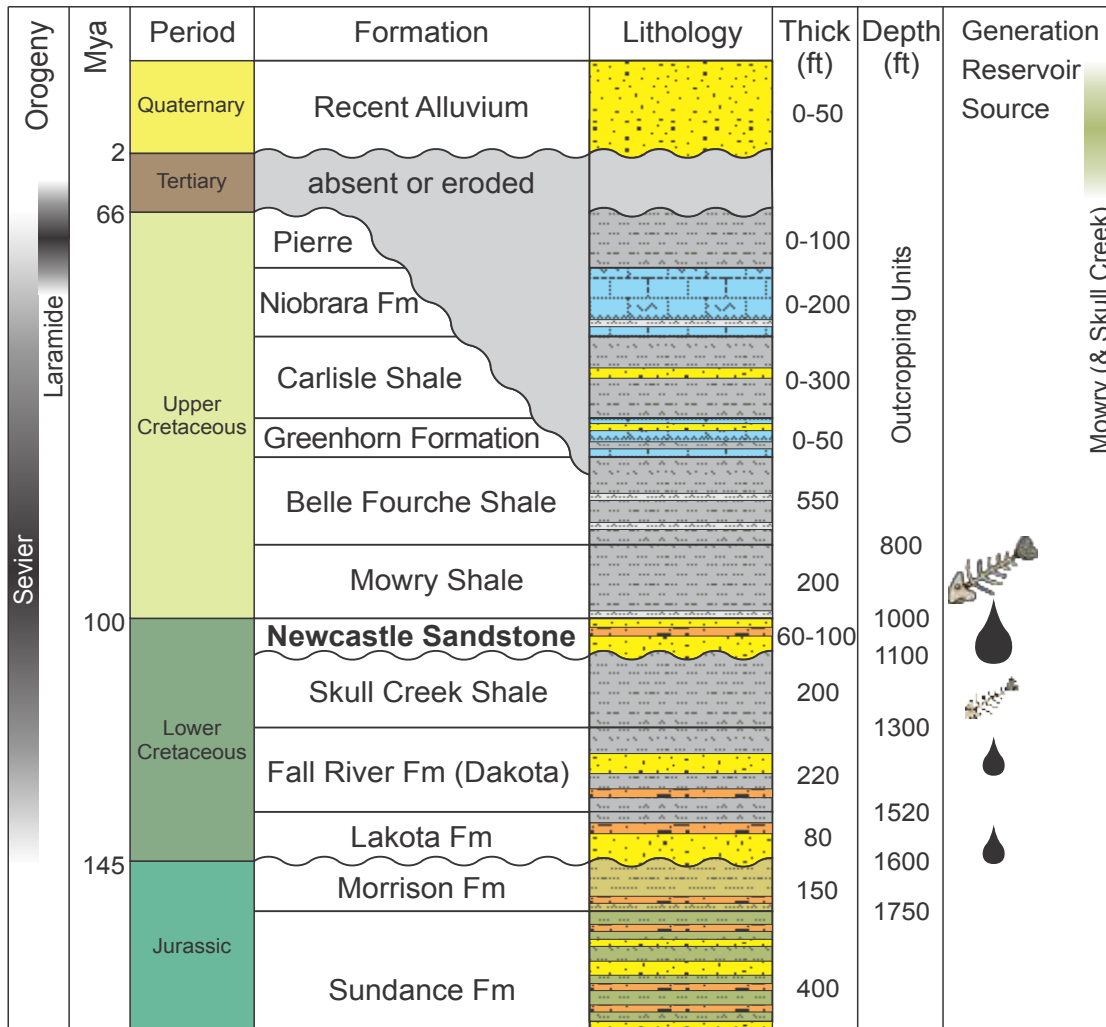
Rights Owned : [A] All P&NG - Newcastle horizons

[2] Freehold Royalty

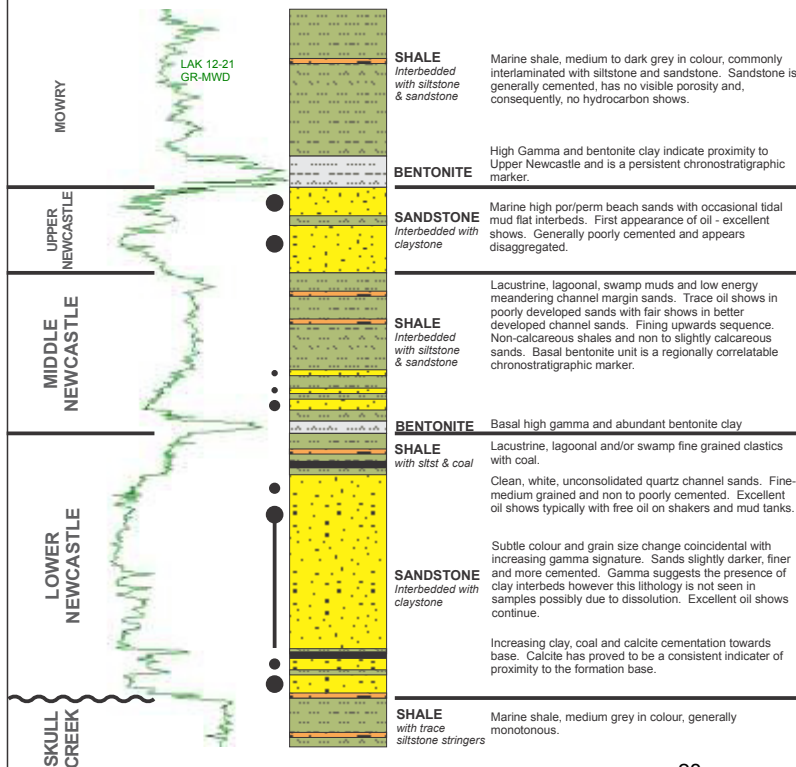
Rick Jeffs	0.6668%
Lisa Stewart de Sno	6.2500%
Don Roberts	3.0000%
SEC	1.0000%
Toby Vineyard	1.5000%
Tyler Vineyard	1.5000%
Allen Wilson	<u>0.1401%</u>
	14.0569%

[3] Tax

Severance	6.0000%
Conservative	0.0400%
Ad Valorem	<u>6.9299%</u>
	12.9699%



## Well: LAK 12-21 Reservoir Section (Typical Newcastle Fm Stratigraphy)



**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**

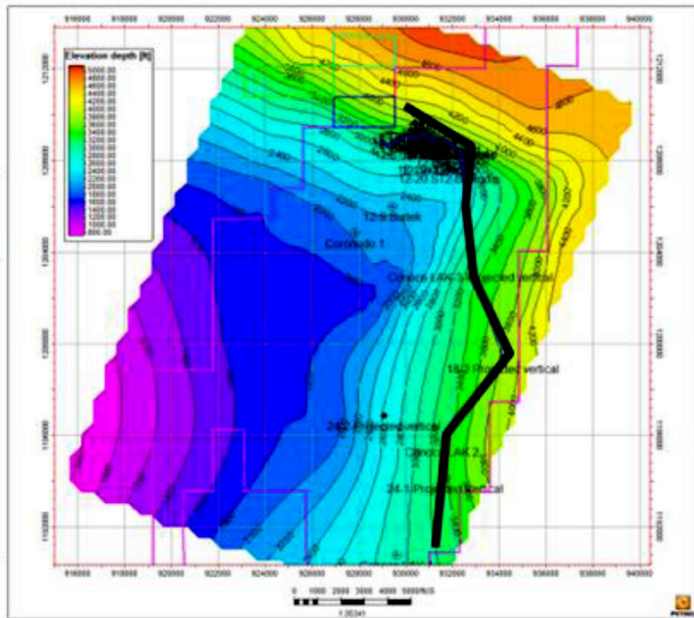
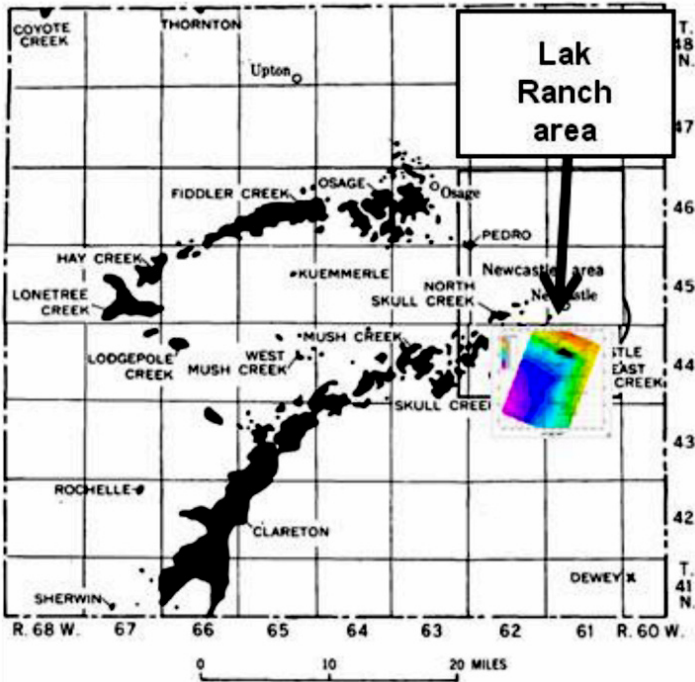
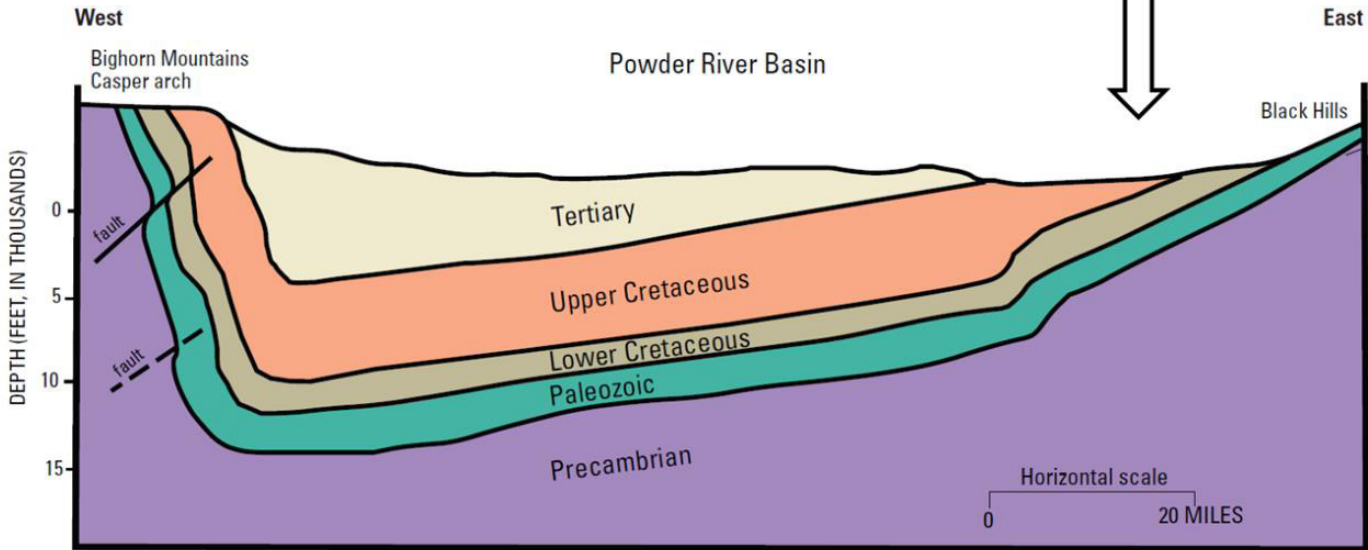
**WESTON COUNTY, WYOMING, U.S.A.**

**STRATIGRAPHIC COLUMN**

---

DEC. 2016      JOB No. 6277      FIGURE No. 2a

Lak Ranch



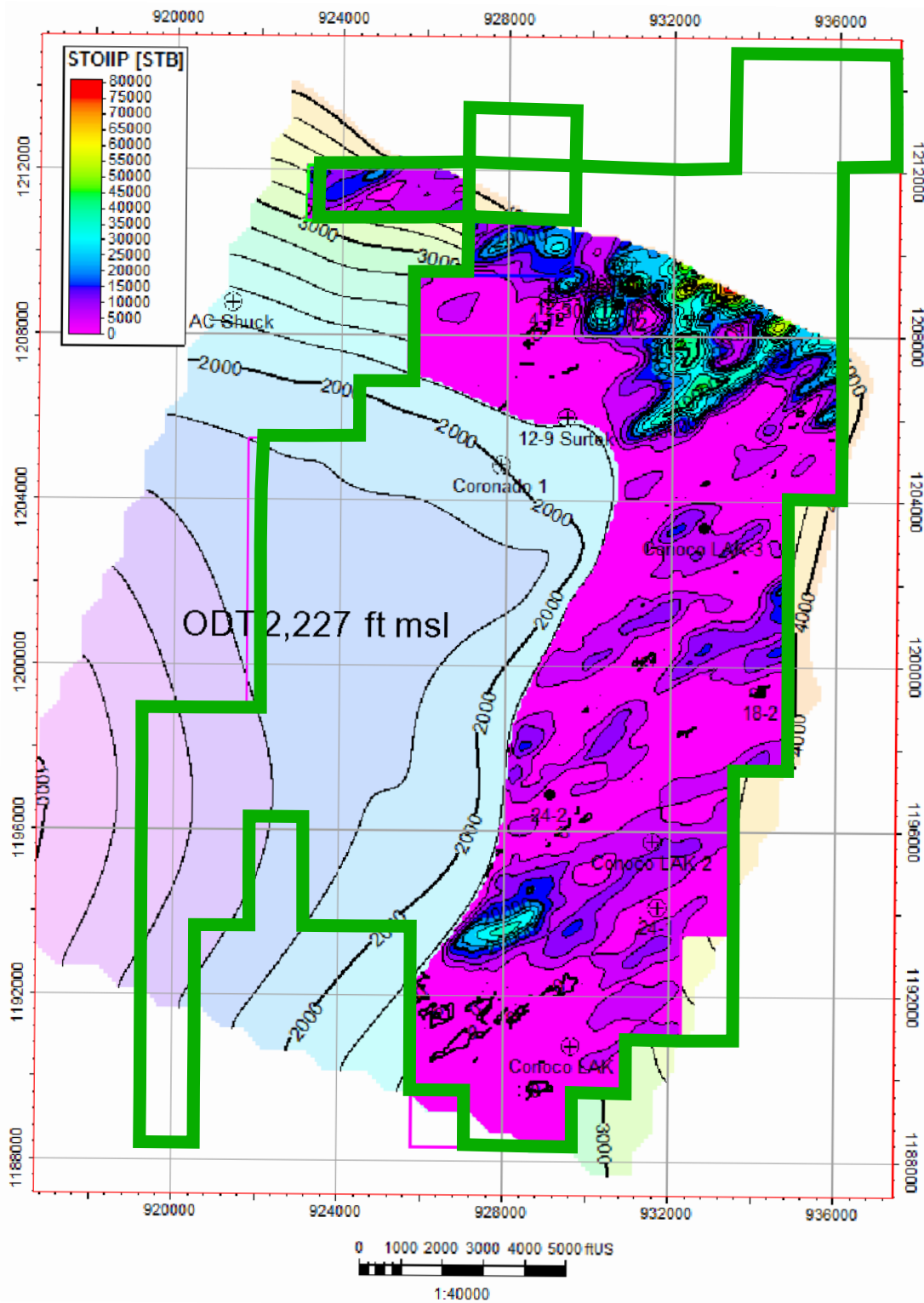
**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**

WESTON COUNTY, WYOMING, U.S.A.

**REGIONAL GEOLOGY**

DEC. 2016      JOB No. 6277      FIGURE No. 2b



**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**

WESTON COUNTY, WYOMING, U.S.A.

**LOWER NEWCASTLE  
STRUCTURE**

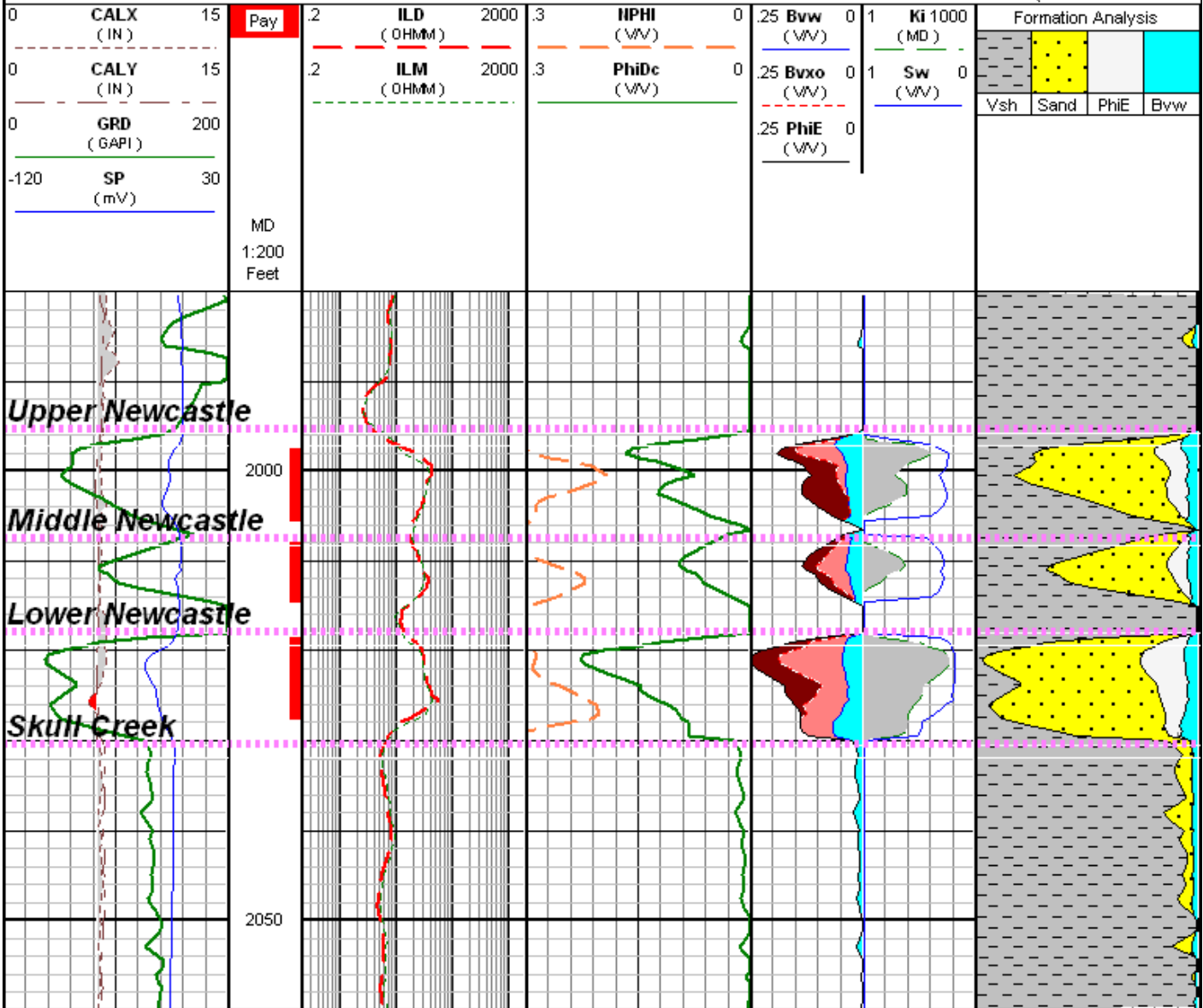
DEC. 2016      JOB No. 6277      FIGURE No. 2c

# Chapman Petroleum Engineering Ltd. SURTEK LAK 12-9

Operator: SURTEK INC  
 Well Name: LAK 12-9  
 Field Name: WMLDCATA

KB: 4252 feet  
 GL: 4250 feet

County / Parish: WESTON



HDS 2000 -- Log Analysis Program -- HDS 2008 SP 9.26  
 Copyright (c) 2013 Hydrocarbon Data Systems, Inc.

Date: 11/23/2015 Time: 10:08:20 AM

**[ Pay Summaries ]**

Formation	Range	Net	Vsh	PhiE	Sw	Ki
- Net						
Upper Newcastle	1995.0 - 2006.5	8.0	0.3717	0.1312	0.2818	18.24
Middle Newcastle	2007.0 - 2017.0	6.5	0.5025	0.0973	0.3134	5.19
Lower Newcastle	2017.5 - 2029.5	9.0	0.1603	0.1870	0.2184	82.60
Summary -->	1995.0 - 2098.0	23.5	0.3269	0.1432	0.2662	39.28

**MAHA ENERGY INC.**

**LAK RANCH HEAVY OIL FIELD**  
 WESTON COUNTY, WYOMING, U.S.A.  
**WELL SURTEK LAK 12-9**  
**LOG ANALYSIS**  
**Newcastle Formation**

DEC. 2016      JOB No. 6277      FIGURE No. 2d

Table 2

Summary of Gross Reserves  
December 1, 2016

## LAK Ranch Heavy Oil Field, Wyoming USA

Description		Current or			Cumulative Production (MSTB)	Remaining ROIP (MSTB)	Reference	
		Initial Rate STB/d	API Gravity (Deg)	Ultimate ROIP (MSTB)				
<b>HEAVY OIL</b>								
<b>Proved Developed Producing</b>								
6 Producing wells	Lower Newcastle	65	19	117	77	40	Fig.3a-3b	
(Well 12-18)		6	19				Fig 3c	
(Well 12-19)		18	19				Fig 3d	
(Well 12-21)		13	19				Fig 3e	
(Well 12-23)		7	19				Fig 3f	
(Well 12-26H)		17	19				Fig 3g	
(Well H-1-P)		5	19				Fig 3h	
Total Proved Developed Producing		65		117	77	40		
Total Proved				117	77	40		
<b>Probable</b>								
6 New Phase 3	Lower Newcastle	64	Aug 17	19	881	0	881	Table 2a
12 Locations Phase 4	Lower Newcastle	64	Aug 18	19	1,761	0	1,761	Table 2a
12 Locations Phase 5	Lower Newcastle	64	Aug 19	19	1,761	0	1,761	Table 2a
12 Locations Phase 6	Lower Newcastle	64	Aug 20	19	1,761	0	1,761	Table 2a
12 Locations Phase 7	Lower Newcastle	64	Aug 20	19	1,761	0	1,761	Table 2a
12 Locations Phase 8	Lower Newcastle	64	Aug 21	19	1,761	0	1,761	Table 2a
12 Locations Phase 9	Lower Newcastle	64	Aug 21	19	1,761	0	1,761	Table 2a
12 Locations Phase 10	Lower Newcastle	64	Aug 22	19	1,761	0	1,761	Table 2a
Total Probable					13,211	0	13,211	
Total Proved Plus Probable					13,328	77	13,251	
<b>Possible</b>								
100 locations	Upper Newcastle	64	Aug 43	19	1,629	0	1,629	Table 2b
100 locations	Middle Newcastle	64	Aug 43	19	976	0	976	Table 2c
100 locations	Lower Newcastle	64	Aug 43	19	2,819	0	2,819	Table 2d
Total Possible					5,424	0	5,424	
Total Proved Plus Probable Plus Possible					18,752	77	18,675	





Table 2b

SUMMARY OF GROSS RESERVES AND RESERVOIR PARAMETERS  
December 1, 2016

LAK RANCH, Weston County, Newcastle Wyoming

Possible  
LAK RANCH  
Upper Newcastle (1)

PRODUCT TYPE

Heavy Oil

RESERVOIR PARAMETERS

Reservoir Pressure, psia	370
Reservoir Temperature, deg F	90
Average Porosity, %	13.0
Average Water Saturation, %	28.0
Formation Volume Factor, RB/STB	1.020
Petroleum Initially-in-Place, STB/ac.ft	711.9
Recovery Factor, %	22

RESERVES

Net Pay, ft	8.0
Area, acres	1,300
Petroleum Initially-in-Place, STB	7,403,761
Reserves Initially-in-Place, STB	1,628,827
Cumulative Production, STB	0
<b>Remaining Reserves, STB</b>	<b>1,628,827</b>

Note: (1) Interval 608.0 - 6011.0 m KB.

Table 2c

SUMMARY OF GROSS RESERVES AND RESERVOIR PARAMETERS  
December 1, 2016

LAK RANCH, Weston County, Newcastle Wyoming

Possible  
LAK RANCH  
Middle Newcastle (1)

PRODUCT TYPE

Heavy Oil

RESERVOIR PARAMETERS

Reservoir Pressure, psia	370
Reservoir Temperature, deg F	90
Average Porosity, %	10.0
Average Water Saturation, %	31.0
Formation Volume Factor, RB/STB	1.020
Petroleum Initially-in-Place, STB/ac.ft	524.8
Recovery Factor, %	22

RESERVES

Net Pay, ft	6.5
Area, acres	1,300
Petroleum Initially-in-Place, STB	4,434,560
Reserves Initially-in-Place, STB	975,603
Cumulative Production, STB	0
<b>Remaining Reserves, STB</b>	<b>975,603</b>

Note: (1) Interval 611.0 - 614.0 m KB.

Table 2d

SUMMARY OF GROSS RESERVES AND RESERVOIR PARAMETERS  
December 1, 2016

LAK RANCH, Weston County, Newcastle Wyoming

Possible  
LAK RANCH  
Lower Newcastle (1)

PRODUCT TYPE

Heavy Oil

RESERVOIR PARAMETERS

Reservoir Pressure, psia	370
Reservoir Temperature, deg F	90
Average Porosity, %	19.0
Average Water Saturation, %	22.0
Formation Volume Factor, RB/STB	1.020
Petroleum Initially-in-Place, STB/ac.ft	1127.2
Recovery Factor, %	22

RESERVES

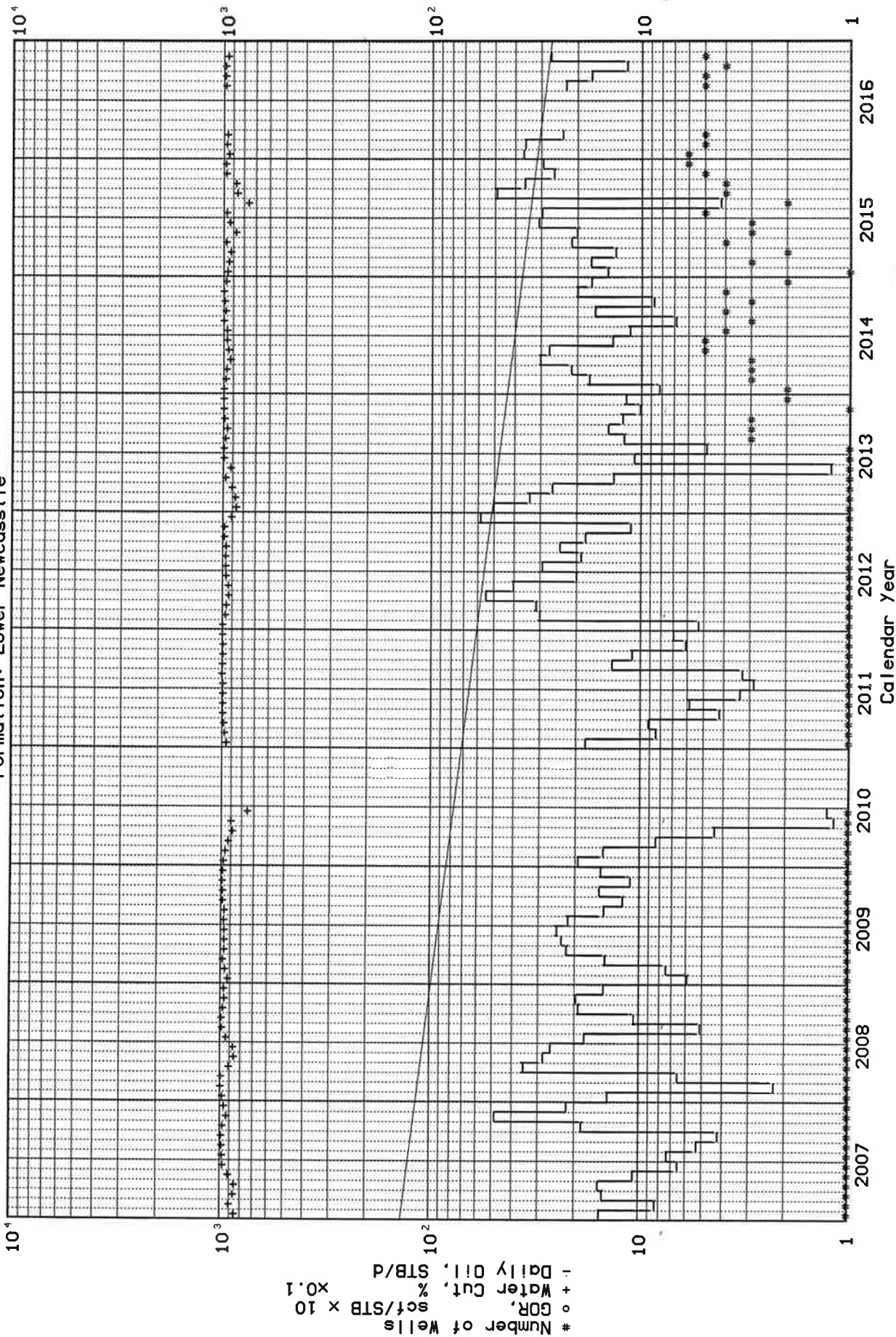
Net Pay, ft	9.0
Area, acres	1,300
Petroleum Initially-in-Place, STB	13,188,240
Reserves Initially-in-Place, STB	2,901,413
Cumulative Production, STB	82,000
<b>Remaining Reserves, STB</b>	<b>2,819,413</b>

Note: (1) Interval 614.0 - 620.0 m KB.

PRODUCTION HISTORY

All Oil Producing Wells

Field: Lak Ranch Field, Wyoming USA  
Formation: Lower Newcasstle



PRODUCTION HISTORY

All Oil Producing Wells  
Field: Lak Runch Field, Wyoming USA  
Formation: Lower Newcasstle

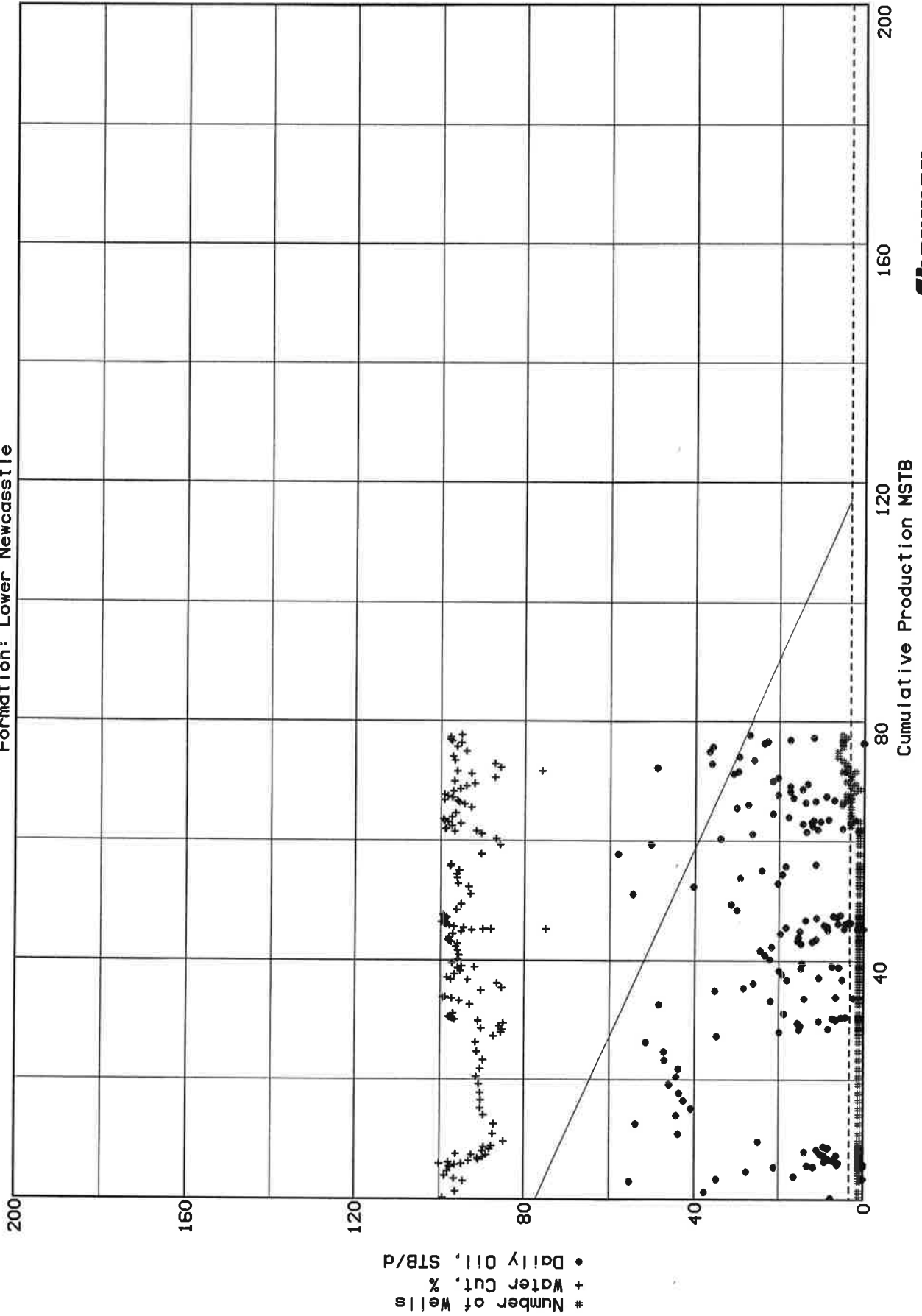
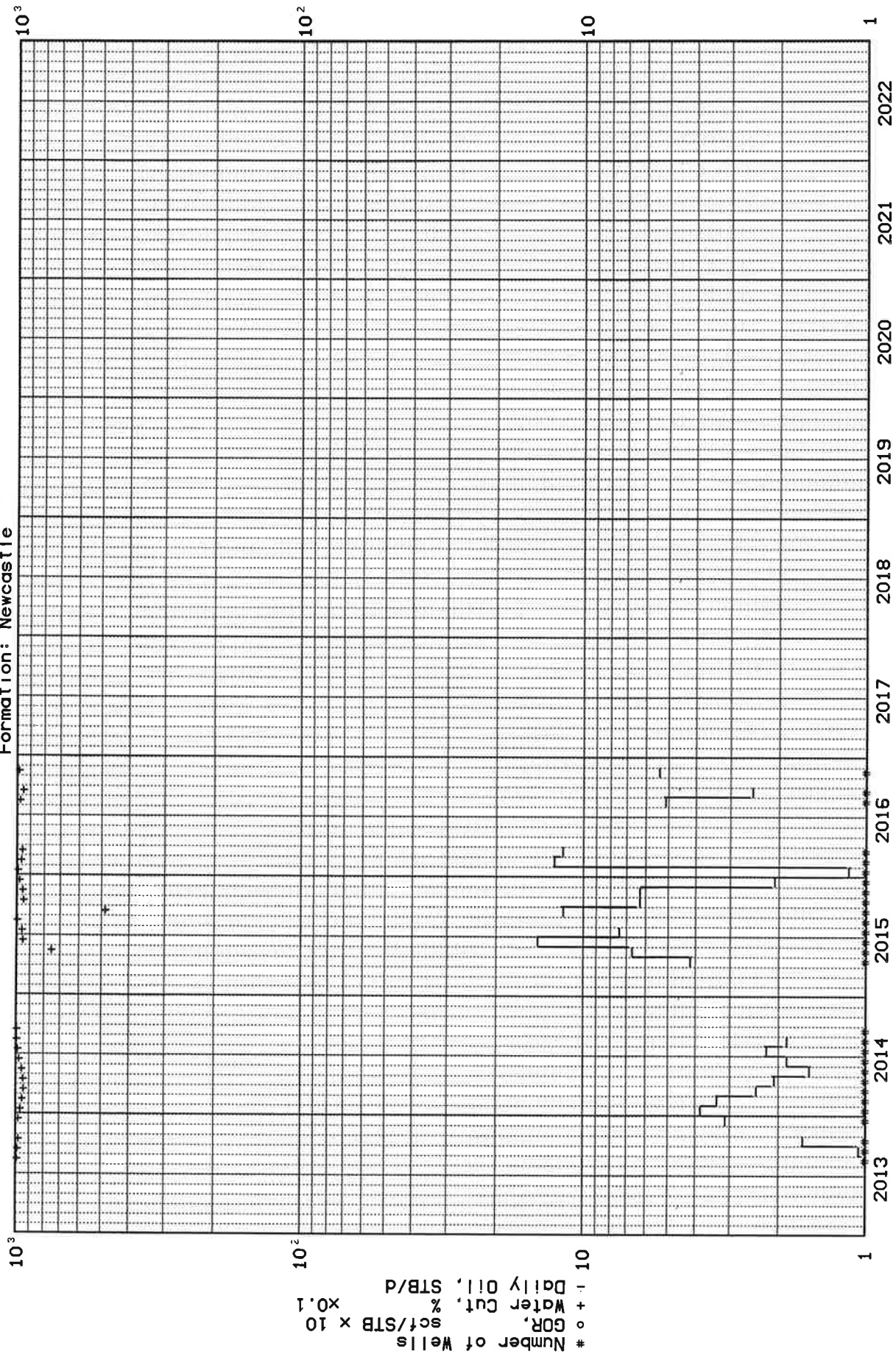


Figure 3 b

PRODUCTION HISTORY

Well 12-18

Field: Lak Ranch Field, Wyoming, USA  
 Formation: Newcastle



PRODUCTION HISTORY

Well LAK RANCH 12-19

Field: Lak Ranch Field, Wyoming, USA  
Formation: Newcastle

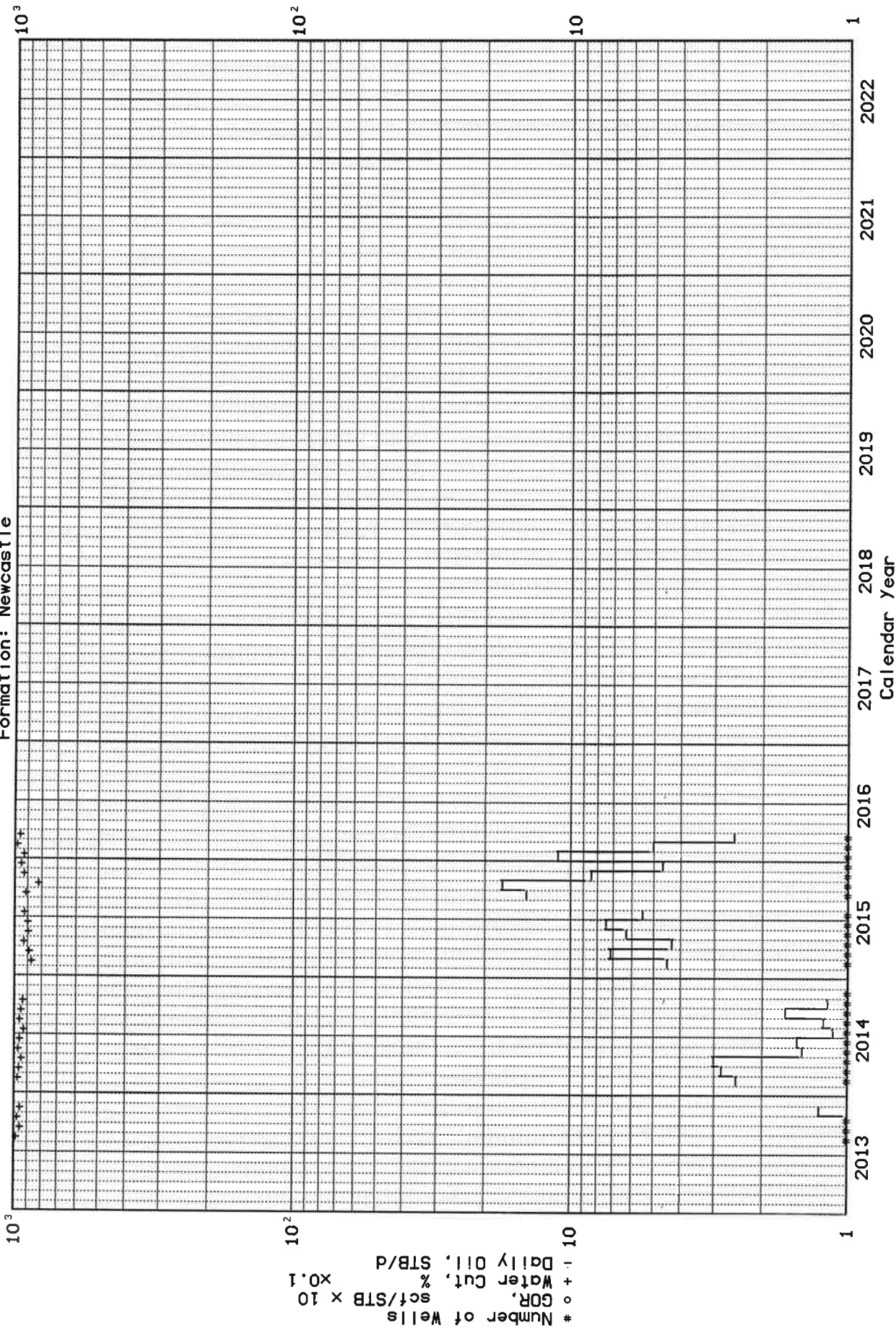


Figure 3 d



PRODUCTION HISTORY

Well LAK RANCH 12-21

Field: Lak Ranch Field, Wyoming, USA  
Formation: Newcastle

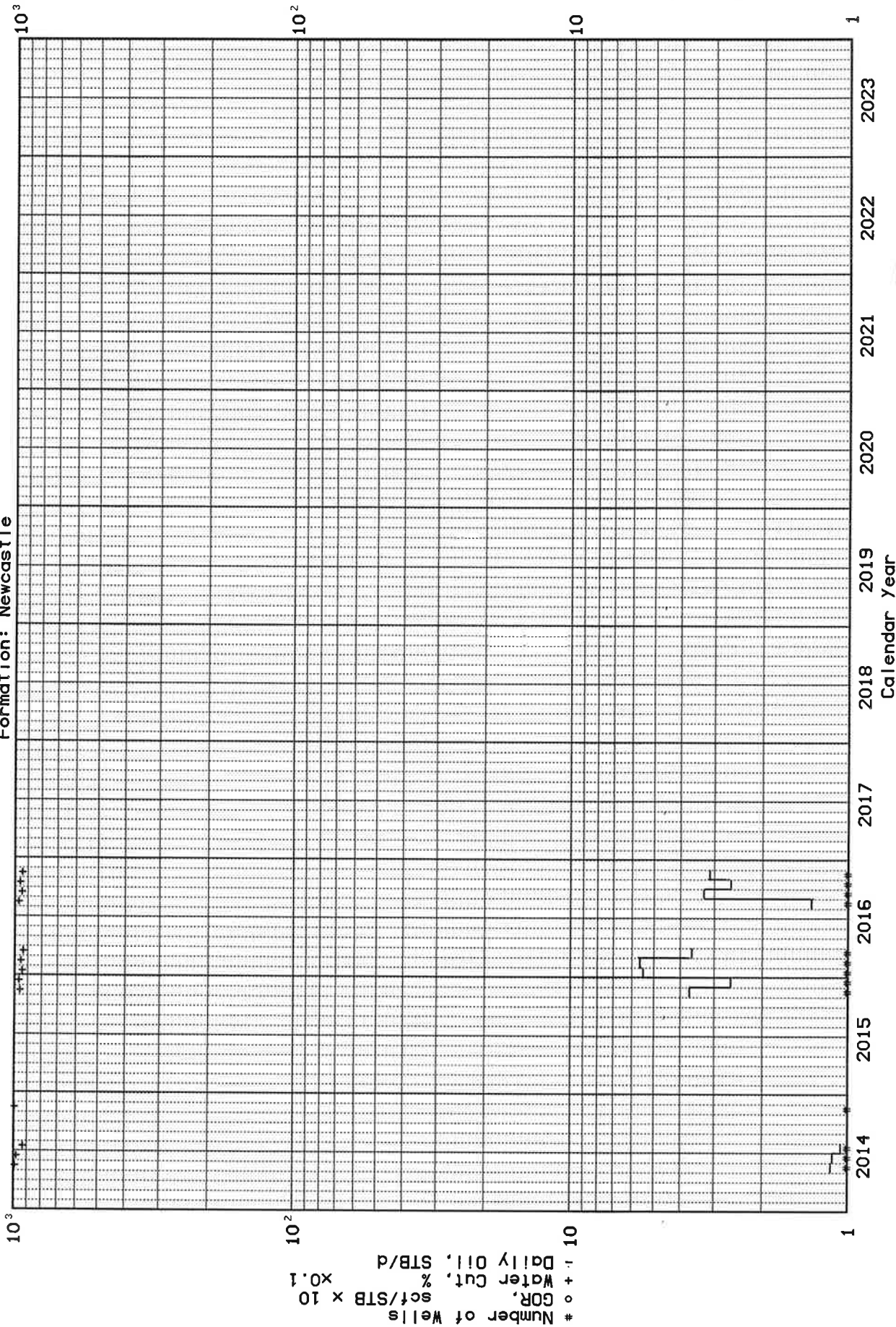


Figure 3 e

PRODUCTION HISTORY

Well LAK RANCH 12-23

Field: Lak Ranch Field, Wyoming, USA  
Formation: Newcastle

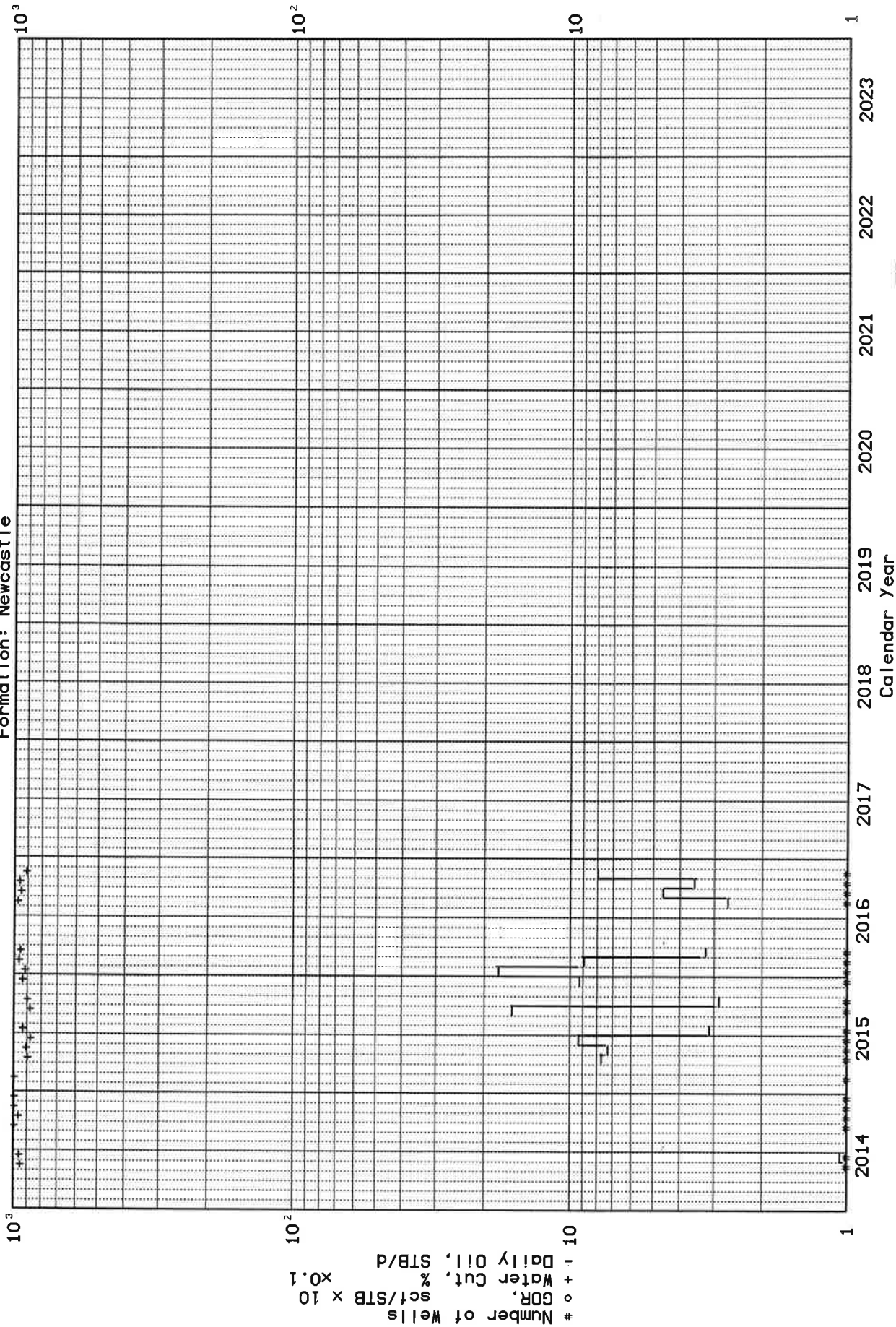


Figure 3 f

PRODUCTION HISTORY

Well LAK 12-26H

Field: Lak Ranch Field, Wyoming, USA  
Formation: Newcastle

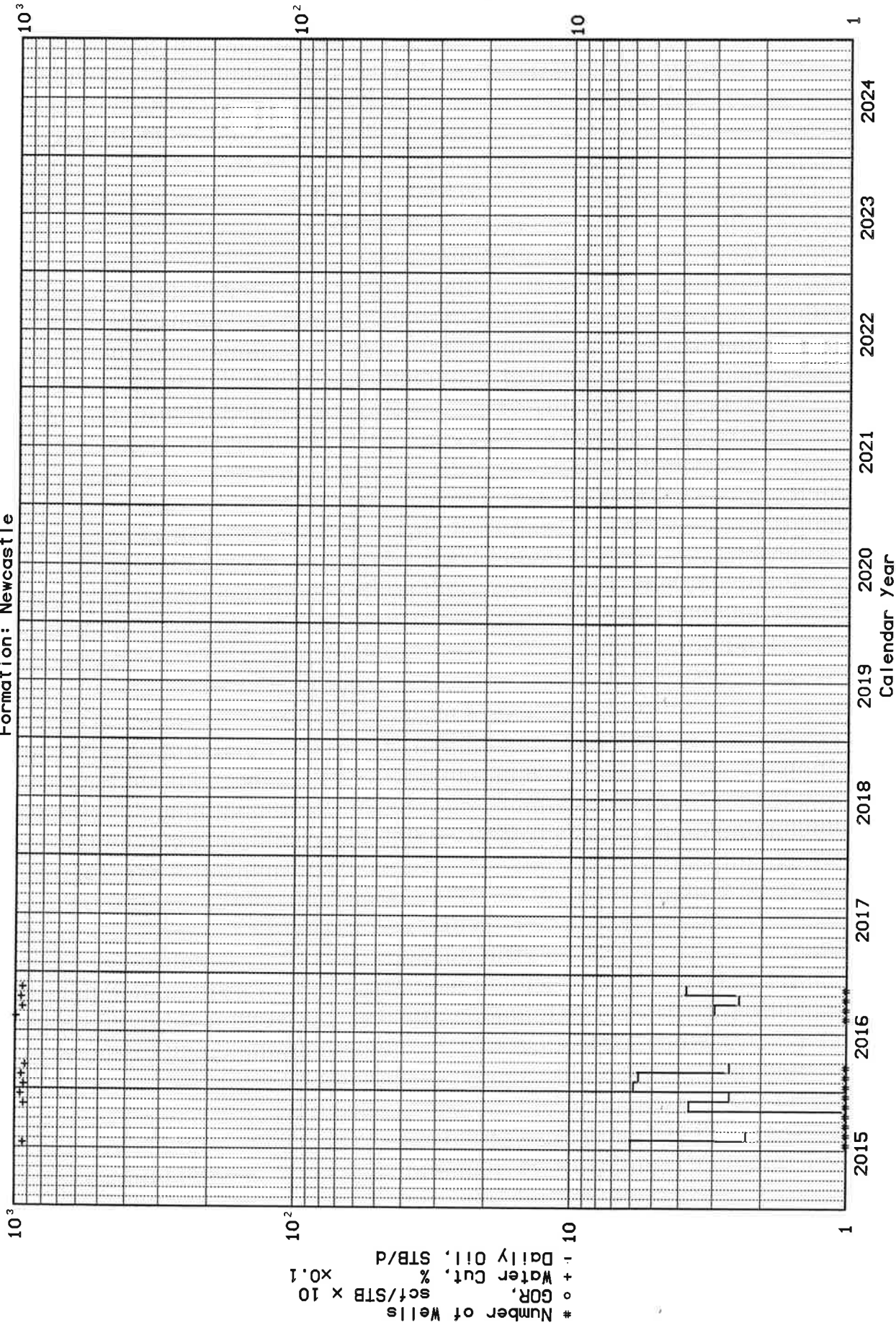


Figure 3 g

PRODUCTION HISTORY

Well DEREK H 1-PH

Field: Lak Ranch Field, Wyoming, USA  
Formation: Newcastle

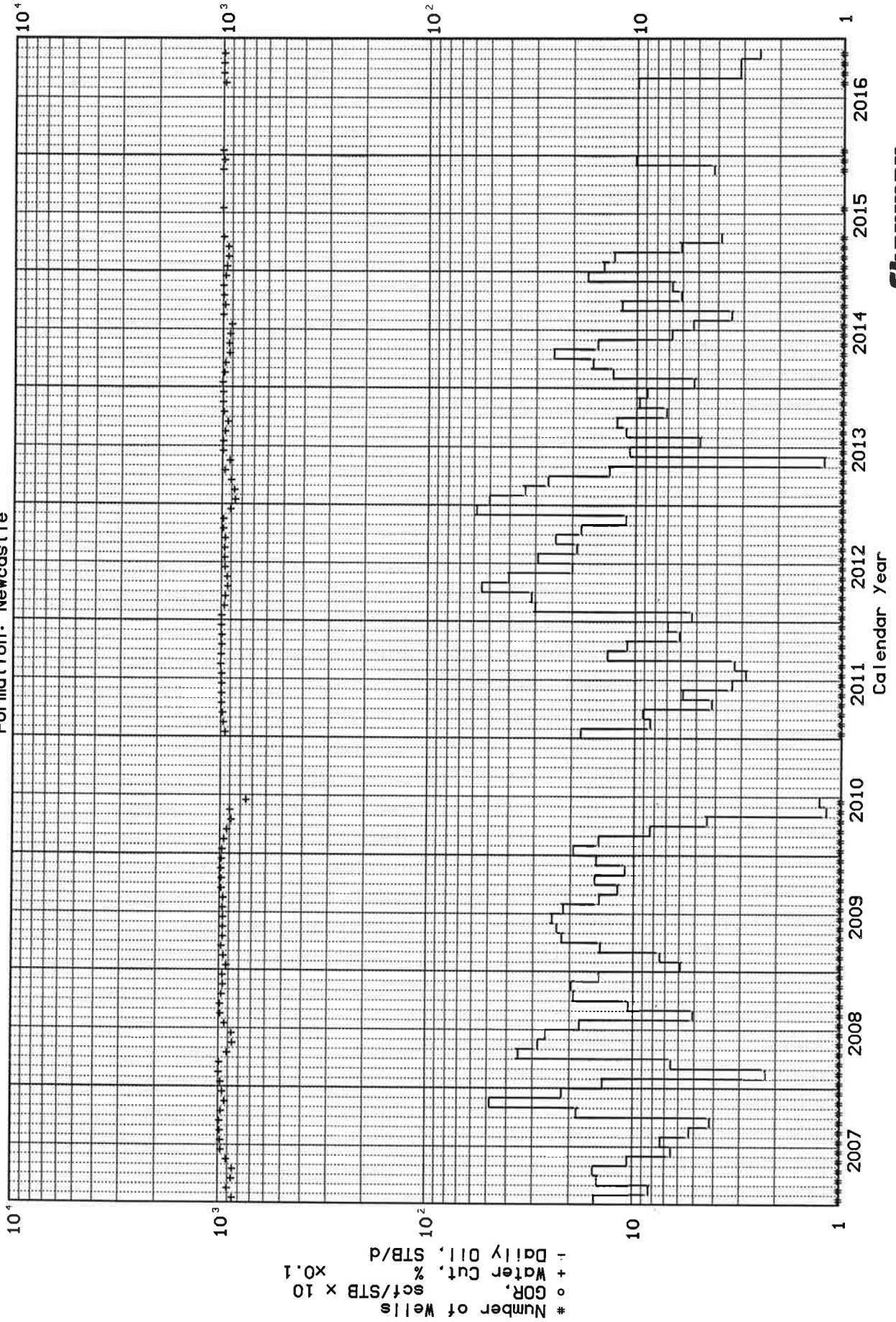


Figure 3 h

Table 3a

**Summary of Anticipated Capital Expenditures  
Development  
December 1, 2016  
MAHA Energy Inc.**

**LAK Ranch Heavy Oil Field, Wyoming USA**

Description	Date	Operation	Capital Interest %	Gross Capital M\$	Net Capital M\$
<b>Probable</b>					
1 Water Flooding Facilities	2017	Water Flood facility for existing wells Phase 3	100.0000	831	831
6 Locations Phase 3	2017	Drill and tie-in producers	100.0000	4,242	4,242
3 Injector Phase 3	2017	Drill injector	100.0000	2,031	2,031
6 WF Facilities	2018	Water Flood for Phase 4	100.0000	4,986	4,986
12 Locations Phase 4	2018	Drill and tie-in producers	100.0000	8,484	8,484
6 Injectors Phase 4	2018	Drill injectors	100.0000	4,062	4,062
12 Locations Phase 5	2019	Drill and tie-in producers	100.0000	8,484	8,484
6 Injectors Phase 5	2019	Drill injectors	100.0000	4,062	4,062
12 Locations Phase 6	2020	Drill and tie-in producers	100.0000	8,484	8,484
6 Injectors Phase 6	2020	Drill injectors	100.0000	4,062	4,062
5 WF Facilities	2020	Water Flood for Phase 6	100.0000	4,155	4,155
24 Locations Phase 7&8	2021	Drill and tie-in producers	100.0000	16,968	16,968
12 Injectors Phase 7&8	2021	Drill injectors	100.0000	8,124	8,124
3 WF Facilities	2021	Water Flood for Phase 7&8	100.0000	2,493	2,493
24 Locations Phase 9&10	2022	Drill and tie-in producers	100.0000	16,968	16,968
12 Injectors Phase 9&10	2022	Drill injectors	100.0000	8,124	8,124
<b>Total Probable</b>				<b>106,560</b>	<b>106,560</b>
<b>Total Proved Plus Probable</b>				<b>106,560</b>	<b>106,560</b>
<b>Possible</b>					
30 Wells	2040	Phase 11 - recomplete 30 wells in Phase 3-5	100.0000	900	900
36 Wells	2041	Phase 12 - recomplete 36 wells in Phase 6-8	100.0000	1,080	1,080
24 Wells	2042	Phase 13 - recomplete 24 wells in Phase 9-10	100.0000	720	720
2 WF Facilities	2042	Phase 14 - Water Flood for Phase 11 & 12	100.0000	1,662	1,662
10 Locations	2043	Phase 14 - Drill and tie-in producers	100.0000	7,070	7,070
5 Injectors	2043	Phase 14 - Drill injectors	100.0000	3,385	3,385
<b>Total Possible</b>				<b>14,817</b>	<b>14,817</b>
<b>Total Proved Plus Probable Plus Possible</b>				<b>121,377</b>	<b>121,377</b>

Note: **M\$ means thousands of dollars.**

The above capital values are expressed in terms of current dollar values with escalation.

Unless details are known, drilling costs have been split 70% Intangible and 30% Tangible for tax purposes

**Table 3b**  
**Summary of Anticipated Capital Expenditures**  
**Abandonment and Restoration**

December 1, 2016

MAHA Energy Inc.

LAK Ranch Heavy Oil Field, Wyoming USA

Description	Well Parameters	Capital Interest %	Gross Capital M\$	Net Capital M\$
135 wells in Phase 3 - 10	Abandon lower newcastle zone	100.0000	2,025	2,025
15 wells in Phase 11-14	Abandon Upper & Middle newcastle zone and reclaim the land	100.0000	225	225
<b>Total Abandonment and Restoration</b>			<b>2,250</b>	<b>2,250</b>

Note: **M\$ means thousands of dollars.**

The above capital values are expressed in terms of current dollar values without escalation.

**Table 4**  
**Summary of Company Reserves and Economics**  
**Before Income Tax**  
**December 1, 2016**

Forecast Prices & Costs

MAHA Energy (US) Inc.

Lak Ranch Heavy Oil Field, Wyoming, USA

Description	Net To Appraised Interest											
	Reserves						Cumulative Cash Flow (BIT) - M\$					
	Heavy Oil MSTB		Sales Gas MMscf		NGL Mbbbls		Discounted at:					
	Gross	Net	Gross	Net	Gross	Net	Undisc.	5%/year	10%/year	15%/year	20%/year	
<b>Proved Developed Producing</b>												
6 Producing Wells	Lower Newcastle	40	35	0	0	0	0	147	145	144	142	140
<b>Total Proved Developed Producing</b>		<b>40</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>145</b>	<b>144</b>	<b>142</b>	<b>140</b>
<b>Probable</b>												
<b>Probable Undeveloped</b>												
6 wells+ 90 Oil Locations	Lower Newcastle	13,211	11,497	0	0	0	0	572,620	319,474	193,718	124,968	84,324
<b>Total Probable Undeveloped</b>		<b>13,211</b>	<b>11,497</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>572,620</b>	<b>319,474</b>	<b>193,718</b>	<b>124,968</b>	<b>84,324</b>
<b>Total Probable</b>		<b>13,211</b>	<b>11,497</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>572,620</b>	<b>319,474</b>	<b>193,717</b>	<b>124,968</b>	<b>84,324</b>
<b>Total Proved Plus Probable</b>		<b>13,251</b>	<b>11,532</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>572,767</b>	<b>319,619</b>	<b>193,861</b>	<b>125,110</b>	<b>84,464</b>
<b>Possible</b>												
100 Oil Locations [1]	Upper & Mid Newcastle	5,424	4,738	0	0	0	0	315,452	89,132	26,896	8,611	2,908
<b>Total Possible</b>		<b>5,424</b>	<b>4,738</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>315,452</b>	<b>89,132</b>	<b>26,897</b>	<b>8,611</b>	<b>2,908</b>
<b>Total Proved Plus Probable Plus Possible</b>		<b>18,675</b>	<b>16,270</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>888,219</b>	<b>408,751</b>	<b>220,758</b>	<b>133,721</b>	<b>87,372</b>

M\$ means thousands of United States dollars.

Gross reserves are the total of the Company's working interest share before deduction of royalties owned by others.

Net reserves are the total of the Company's working and/or royalty interest share after deducting the amounts attributable to royalties owned by others.

Columns may not add precisely due to accumulative rounding of values throughout the report.

[1] 90 recompletions and 10 new locations

**Table 4T**  
**Summary of Company Reserves and Economics**  
**After Income Tax**  
**December 1, 2016**

Forecast Prices & Costs

MAHA Energy (US) Inc.

Description	Net To Appraised Interest										
	Reserves						Cumulative Cash Flow - M\$				
	Heavy Oil MSTB		Sales Gas MMscf		NGL Mbbbls		Undisc.	Discounted at:			
	Gross	Net	Gross	Net	Gross	Net		5%/year	10%/year	15%/year	20%/year
<b>Proved Developed Producing</b>											
Total Proved Developed Producing (BIT)	40	35	0	0	0	0	147	145	144	142	140
Company Income Tax	-	-	-	-	-	-	0	0	0	0	0
<b>Total Proved Developed Producing (AIT)</b>	<b>40</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>145</b>	<b>144</b>	<b>142</b>	<b>140</b>
<b>Probable</b>											
Total Probable (BIT)	13,211	11,497	0	0	0	0	572,620	319,474	193,717	124,968	84,324
Company Income Tax	-	-	-	-	-	-	(188,879)	(105,695)	(64,649)	(42,334)	(29,190)
<b>Total Probable (AIT)</b>	<b>13,211</b>	<b>11,497</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>383,741</b>	<b>213,779</b>	<b>129,068</b>	<b>82,634</b>	<b>55,133</b>
<b>Total Proved Plus Probable (AIT)</b>	<b>13,251</b>	<b>11,532</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>383,888</b>	<b>213,924</b>	<b>129,212</b>	<b>82,776</b>	<b>55,273</b>
<b>Possible</b>											
Total Possible (BIT)	5,424	4,738	0	0	0	0	315,452	89,132	26,897	8,611	2,908
Company Income Tax	-	-	-	-	-	-	(108,764)	(30,770)	(9,267)	(2,928)	(948)
<b>Total Possible (AIT)</b>	<b>5,424</b>	<b>4,738</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>206,688</b>	<b>58,362</b>	<b>17,630</b>	<b>5,683</b>	<b>1,961</b>
<b>Total Proved Plus Probable Plus Possible (AIT)</b>	<b>18,675</b>	<b>16,270</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>590,576</b>	<b>272,286</b>	<b>146,842</b>	<b>88,459</b>	<b>57,234</b>

M\$ means thousands of United States dollars.

Gross reserves are the total of the Company's working royalty interest share before deduction of royalties owned by others.

Net reserves are the total of the Company's working and/or royalty interest share after deducting the amounts attributable to royalties owned by others.

Columns may not add precisely due to accumulative rounding of values throughout the report.



Table 4a

EVALUATION OF: LAK Ranch Heavy Oil Field - Proved Developed Producing

ERGO v7.43 P2 ENERGY SOLUTIONS PAGE 1  
 GLOBAL : 05-JAN-2017 6277  
 EFF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-DEC-2016  
 RUN DATE: 5-JAN-2017 TIME: 13:29  
 FILE: HlrPPL.DAX

WELL/LOCATION - 6 Producing Well (Newcastle)  
 EVALUATED BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

UNIT FACTOR - 100.0000 %  
 TOTAL RESERVES - 40000 STB  
 PRODUCTION TO DATE - N/A  
 DECLINE INDICATOR - EXPONENTIAL  
 TOTAL ABANDONMENT - 90 -M\$- (2019)

INTEREST

AVG WI 100.0000%

ROYALTIES/TAXES

AVG FH 12.97% + SEVERANCE TAX + AD-VALOREM TAX

Year	# of Wells	Price \$/STB	Oil STB		Company Share	
			Pool		Gross	Net
			STB/D	Vol		
2016	6	45.50	64.1	1987	1987	1730
2017	6	50.50	54.9	20028	20028	17431
2018	6	60.50	39.4	14388	14388	12522
2019	6	65.50	9.9	3596	3596	3130
SUB				40000	40000	34812
REM				0	0	0
TOT				40000	40000	34812

COMPANY SHARE FUTURE NET REVENUE

Year	Company Share Future Revenue (FR)											Future Net Revenue						
	Oil	SaleGas	Products	Total	Royalties		Wellhead Taxes		Oper Costs		FR After Roy&Oper	Proc& Other Income	Capital Costs	Aband Costs	Undiscounted		10.0%	
					State	Other	Sev	Ad-val	Fixed	Variabl					Annual	Cum	Annual	Cum
2016	90	0	0	90	0	12	5	5	30	29	10	0	0	0	10	10	10	10
2017	1011	0	0	1011	0	131	53	54	362	293	119	0	0	0	119	129	112	122
2018	870	0	0	870	0	113	45	46	362	211	93	0	0	0	93	222	80	203
2019	236	0	0	236	0	31	12	12	113	53	15	0	0	90	-75	147	-59	144
SUB	2208	0	0	2208	0	286	115	117	867	586	237	0	0	90	147		144	
REM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
TOT	2208	0	0	2208	0	286	115	117	867	586	237	0	0	90	147		144	

NET PRESENT VALUE (-M\$-)

Discount Rate	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
FR After Roy & Oper.	237	225	218	214	210	204	196
Proc & Other Income	0	0	0	0	0	0	0
Capital Costs	0	0	0	0	0	0	0
Abandonment Costs	90	79	74	70	67	63	56
Future Net Revenue	147	145	144	144	143	142	140

PROFITABILITY

COMPANY SHARE BASIS	Before Tax
Rate of Return (%)	n/a
Profit Index (undisc.)	n/a
(disc. @ 10.0%)	n/a
(disc. @ 5.0%)	n/a
First Payout (years)	n/a
Total Payout (years)	n/a
Cost of Finding (\$/BOG)	n/a
NPV @ 10.0% (\$/STB)	3.59
NPV @ 5.0% (\$/STB)	3.64

COMPANY SHARE

	1st Year	Average	Royalties	Oper Costs	FR After Roy&Oper	Capital Costs	Future NetRev
% Interest	100.0	100.0					
% of Future Revenue			18.2	65.8	10.7	.0	6.7

Table 4a

U.S. FUTURE NET REVENUE & INCOME TAX SUMMARY:

ERGO v7.43 P2 ENERGY SOLUTIONS PAGE 1  
 GLOBAL : 05-JAN-2017 6277  
 EFF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-DEC-2016  
 RUN DATE: 5-JAN-2017 TIME: 13:29  
 FILE: HlrPPI.DAX

POOL ..... LAK Ranch Heavy Oil Field  
 WELL/LOCATION .... 6 Producing Well (Newcastle)

Year	FR After Roy&Oper -M\$-	Capital Costs -M\$-	Aband Costs -M\$-	Admin + Oth Income -M\$-	Future Net Rev Before Tax		Taxable Income		Income Tax			Future Net Rev After Tax	
					Annual -M\$-	Cum -M\$-	Before Deduct -M\$-	After Deduct -M\$-	Federal -M\$-	State -M\$-	Total -M\$-	Annual -M\$-	Cum -M\$-
2016	10	0	0	-10	10	10	10	0	0	0	0	10	10
2017	119	0	0	-119	119	129	119	0	0	0	0	119	129
2018	93	0	0	-93	93	222	93	0	0	0	0	93	222
2019	15	0	90	-15	-75	147	15	0	0	0	0	-75	147
SUB	237	0	90	-237	147		237	0	0	0	0	147	
REM	0	0	0	0	0		0	0	0	0	0	0	
TOT	237	0	90	-237	147		237	0	0	0	0	147	

NET PRESENT VALUE (-M\$-)	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
Future net revenue before tax	147	145	144	144	143	142	140
Total income tax	0	0	0	0	0	0	0
Future net revenue after tax	147	145	144	144	143	142	140

Table 4b

EVALUATION OF: Maha Energy (US) Inc.  
 ===== Total Proved Plus Probable Cons.,

ERGO v7.43 P2 ENERGY SOLUTIONS TOTAL  
 GLOBAL : 09-JAN-2017 6277  
 BFF:01-DEC-2016 DISC:01-DEC-2016  
 RUN DATE: 11-JAN-2017 TIME: 10:42  
 FILE:

EVALUATED BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

TOTAL CAPITAL COSTS - 106560 -M\$-  
 TOTAL ABANDONMENT - 1440 -M\$-

Year	# of Wells	Price \$/STB	Oil		Company Share	
			MSTB		Pool	
			STB/D	Vol	Gross	Net
2016	6	45.50	64.1	2	2	2
2017	12	50.50	215.8	79	79	69
2018	24	60.50	695.4	254	254	221
2019	36	65.50	1271.9	464	464	404
2020	42	70.50	1742.0	636	636	553
2021	66	73.50	2425.0	885	885	770
2022	90	76.50	3379.0	1233	1233	1073
2023	90	77.50	3519.0	1284	1284	1118
2024	90	79.14	2802.0	1023	1023	890
2025	90	80.81	2211.0	807	807	702
2026	90	82.52	1797.0	656	656	571
2027	90	84.26	1566.0	572	572	497
2028	90	86.03	1398.0	510	510	444
2029	90	87.85	1284.0	469	469	408
2030	90	89.69	1218.0	445	445	387
SUB				9318	9318	8110
REM				3932	3932	3422
TOT				13251	13251	11532

COMPANY SHARE FUTURE NET REVENUE

Year	Company Share Future Revenue (FR)										Future Net Revenue																
	Oil			SaleGas			Products			Total	Royalties		Wellhead Taxes		Oper Costs		Proc& Other		Capital		Aband		Undiscounted		10.0%		
	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-
2016	90	0	0	0	90	0	12	5	5	30	29	10	0	0	0	0	0	0	0	0	0	10	10	10	10	10	10
2017	3978	0	0	0	3978	0	516	208	211	428	747	1869	0	7104	0	0	0	0	0	0	0	-5235	-5226	-4952	-4942	-4942	
2018	15357	0	0	0	15357	0	1992	802	814	837	2062	8850	0	17532	0	0	0	0	0	0	0	-8682	-13907	-7465	-12406	-12406	
2019	30407	0	0	0	30407	0	3944	1588	1612	905	3613	18745	0	12546	0	0	0	0	0	0	0	6109	-7798	4775	-7631	-7631	
2020	44826	0	0	0	44826	0	5814	2341	2376	1109	4915	28271	0	16701	0	0	0	0	0	0	0	11570	3772	8222	590	590	
2021	65057	0	0	0	65057	0	8438	3397	3448	1743	6842	41188	0	27585	0	0	0	0	0	0	0	13603	17376	8788	9378	9378	
2022	94350	0	0	0	94350	0	12237	4927	5001	2377	9534	60275	0	25092	0	0	0	0	0	0	0	35183	52558	20661	30039	30039	
2023	99544	0	0	0	99544	0	12911	5198	5276	2377	9929	63853	0	0	0	0	0	0	0	0	0	63853	116412	34089	64128	64128	
2024	80939	0	0	0	80939	0	10498	4226	4290	2377	7906	51642	0	0	0	0	0	0	0	0	0	51642	168054	25064	89192	89192	
2025	65215	0	0	0	65215	0	8458	3405	3456	2377	6238	41279	0	0	0	0	0	0	0	0	0	41279	209333	18213	107405	107405	
2026	54125	0	0	0	54125	0	7020	2826	2869	2377	5070	33963	0	0	0	0	0	0	0	0	0	33963	243296	13623	121027	121027	
2027	48162	0	0	0	48162	0	6247	2515	2553	2377	4418	30053	0	0	0	0	0	0	0	0	0	30053	273349	10958	131986	131986	
2028	43899	0	0	0	43899	0	5694	2292	2327	2377	3944	27264	0	0	0	0	0	0	0	0	0	27264	300613	9038	141024	141024	
2029	41172	0	0	0	41172	0	5340	2150	2182	2377	3623	25500	0	0	0	0	0	0	0	0	0	25500	326113	7684	148708	148708	
2030	39873	0	0	0	39873	0	5172	2082	2113	2377	3437	24693	0	0	0	0	0	0	0	0	0	24693	350806	6765	155473	155473	
SUB	726994	0	0	0	726994	0	94290	37962	38532	26447	72307	457456	0	106560	90	350806								155473	155473		
REM	360130	0	0	0	360130	0	46708	18805	19087	21821	30398	223311	0	0	1350	221961									38388	38388	
TOT	1087124	0	0	0	1087124	0	140999	56767	57619	48267	102704	680767	0	106560	1440	572767									193861	193861	

NET PRESENT VALUE (-M\$-)

Discount Rate	NET PRESENT VALUE (-M\$-)							
	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%	
FR After Roy & Oper.	680767	409480	316019	270082	233336	190702	141592	
Proc & Other Income	0	0	0	0	0	0	0	
Capital Costs	106560	89375	80976	76021	71514	65486	57057	
Abandonment Costs	1440	486	277	200	150	106	71	
Future Net Revenue	572767	319619	234766	193861	161672	125110	84464	

PROFITABILITY

COMPANY SHARE BASIS		Before Tax
Rate of Return (%)		81.9
Profit Index (undisc.)		5.3
(disc. @ 10.0%)		2.5
(disc. @ 5.0%)		3.6
First Payout (years)		.1
Total Payout (years)		5.2
Cost of Finding (\$/BOE)		8.15
NPV @ 10.0% (\$/BOE)		14.63
NPV @ 5.0% (\$/BOE)		24.12

COMPANY SHARE

	1st Year	Average	Royalties	Oper Costs	FR After Roy&Oper	Capital Costs	Future NetRev
% Interest	100.0	100.0					
% of Future Revenue			18.2	13.9	62.6	9.8	52.7

Table 4b

U.S. FUTURE NET REVENUE & INCOME TAX SUMMARY:

ERGO v7.43 P2 ENERGY SOLUTIONS TOTAL  
 GLOBAL : 09-JAN-2017 6277  
 BPF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-JAN-2016  
 RUN DATE: 11-JAN-2017 TIME: 10:42  
 FILE:

EVALUATION BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

Year	FR After Roy&Oper -M\$-	Capital Costs -M\$-	Aband Costs -M\$-	Admin + Oth Income -M\$-	Future Net Rev Before Tax		Taxable Income		Income Tax			Future Net Rev After Tax	
					Annual -M\$-	Cum -M\$-	Before Deduct -M\$-	After Deduct -M\$-	Federal -M\$-	State -M\$-	Total -M\$-	Annual -M\$-	Cum -M\$-
2016	10	0	0	-10	10	10	10	0	0	0	0	10	10
2017	1869	7104	0	-1869	-5235	-5226	1869	0	0	0	0	-5235	-5226
2018	8850	17532	0	-8850	-8682	-13907	8850	0	0	0	0	-8682	-13907
2019	18745	12546	90	-384	6109	-7798	18745	0	0	0	0	6109	-7798
2020	28271	16701	0	0	11570	3772	28271	3917	1332	0	1332	10239	2441
2021	41188	27585	0	0	13603	17376	41188	18091	6151	0	6151	7452	9893
2022	60275	25092	0	0	35183	52558	60275	38076	12946	0	12946	22237	32130
2023	63853	0	0	0	63853	116412	63853	59193	20126	0	20126	43728	75857
2024	51642	0	0	0	51642	168054	51642	47090	16010	0	16010	35632	111489
2025	41279	0	0	0	41279	209333	41279	36853	12530	0	12530	28749	140238
2026	33963	0	0	0	33963	243296	33963	29542	10044	0	10044	23919	164157
2027	30053	0	0	0	30053	273349	30053	25660	8724	0	8724	21328	185485
2028	27264	0	0	0	27264	300613	27264	27033	9191	0	9191	18073	203558
2029	25500	0	0	0	25500	326113	25500	25292	8599	0	8599	16901	220459
2030	24693	0	0	0	24693	350806	24693	24505	8332	0	8332	16361	236820
SUB	457456	106560	90	-11112	350806		457456	335252	113986	0	113986	236820	
REM	223311	0	1350	0	221961		223311	220273	74893	0	74893	147068	
TOT	680767	106560	1440	-11112	572767		680767	555525	188879	0	188879	383888	

NET PRESENT VALUE (-M\$-)	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
Future net revenue before tax	572767	319619	234766	193861	161672	125110	84464
Total income tax	188879	105695	77972	64649	54188	42334	29190
Future net revenue after tax	383888	213924	156794	129212	107484	82776	55273

Table 4c

EVALUATION OF: Maha Energy (US) Inc.  
 ===== Total Proved Plus Probable Plus Possible Cons.

ERGO v7.43 P2 ENERGY SOLUTIONS TOTAL  
 GLOBAL : 09-JAN-2017 6277  
 BFF:01-DEC-2016 DISC:01-DEC-2016  
 RUN DATE: 11-JAN-2017 TIME: 10:42  
 FILE:

EVALUATED BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

TOTAL CAPITAL COSTS - 121377 -M\$-  
 TOTAL ABANDONMENT - 1665 -M\$-

Year	# of Wells	Price \$/STB	Oil		Company Share	
			MSTB		Pool	
			STB/D	Vol	Gross	Net
2016	6	45.50	64.1	2	2	2
2017	12	50.50	215.8	79	79	69
2018	24	60.50	695.4	254	254	221
2019	36	65.50	1271.9	464	464	404
2020	42	70.50	1742.0	636	636	553
2021	66	73.50	2425.0	885	885	770
2022	90	76.50	3379.0	1233	1233	1073
2023	90	77.50	3519.0	1284	1284	1118
2024	90	79.14	2802.0	1023	1023	890
2025	90	80.81	2211.0	807	807	702
2026	90	82.52	1797.0	656	656	571
2027	90	84.26	1566.0	572	572	497
2028	90	86.03	1398.0	510	510	444
2029	90	87.85	1284.0	469	469	408
2030	90	89.69	1218.0	445	445	387
SUB				9318	9318	8110
REB				9356	9356	8161
TOT				18675	18675	16270

COMPANY SHARE FUTURE NET REVENUE

Year	Company Share Future Revenue (FR)				Royalties		Wellhead Taxes		Oper Costs		Proc & Other		Capital Costs		Aband Costs		Future Net Revenue	
	Oil	SaleGas	Products	Total	State	Other	Sev	Ad-val	Fixed	Variabl	FR After Roy&Oper	Income	Costs	Costs	Costs	Undiscounted	10.0%	
	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-	-M\$-
2016	90	0	0	90	0	12	5	5	30	29	10	0	0	0	10	10	10	
2017	3978	0	0	3978	0	516	208	211	428	747	1869	0	7104	0	-5235	-5226	-4952	
2018	15357	0	0	15357	0	1992	802	814	837	2062	8850	0	17532	0	-8682	-13907	-7465	
2019	30407	0	0	30407	0	3944	1588	1612	905	3613	18745	0	12546	90	6109	-7798	4775	
2020	44826	0	0	44826	0	5814	2341	2376	1109	4915	28271	0	16701	0	11570	3772	8222	
2021	65057	0	0	65057	0	8438	3397	3448	1743	6842	41188	0	27585	0	13603	17376	8788	
2022	94350	0	0	94350	0	12237	4927	5001	2377	9534	60275	0	25092	0	35183	52558	20661	
2023	99544	0	0	99544	0	12911	5198	5276	2377	9929	63853	0	0	0	63853	116412	34089	
2024	80939	0	0	80939	0	10498	4226	4290	2377	7906	51642	0	0	0	51642	168054	25064	
2025	65215	0	0	65215	0	8458	3405	3456	2377	6238	41279	0	0	0	41279	209333	18213	
2026	54125	0	0	54125	0	7020	2826	2869	2377	5070	33963	0	0	0	33963	243296	13623	
2027	48162	0	0	48162	0	6247	2515	2553	2377	4418	30053	0	0	0	30053	273349	10958	
2028	43899	0	0	43899	0	5694	2292	2327	2377	3944	27264	0	0	0	27264	300613	9038	
2029	41172	0	0	41172	0	5340	2150	2182	2377	3623	25500	0	0	0	25500	326113	7684	
2030	39873	0	0	39873	0	5172	2082	2113	2377	3437	24693	0	0	0	24693	350806	6765	
SUB	726994	0	0	726994	0	94290	37962	38532	26447	72307	457456	0	106560	90	350806		155473	
REB	856860	0	0	856860	0	109507	44089	44750	32385	72325	553804	0	14817	1575	537413		65285	
TOT	1583854	0	0	1583854	0	203797	82051	83281	58832	144632	1011260	0	121377	1665	888219		220758	

NET PRESENT VALUE (-M\$-)

Discount Rate	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
FR After Roy & Oper.	1011260	502814	361145	298227	251057	199705	144630
Proc & Other Income	0	0	0	0	0	0	0
Capital Costs	121377	93526	82969	77257	72288	65875	57186
Abandonment Costs	1665	537	299	212	157	109	72
Future Net Revenue	888219	406751	277878	220758	178611	133721	87372

PROFITABILITY

COMPANY SHARE BASIS		Before Tax
Rate of Return (%)		81.9
Profit Index (undisc.)		7.2
(disc. @ 10.0%)		2.8
(disc. @ 5.0%)		4.3
First Payout (years)		.1
Total Payout (years)		5.5
Cost of Finding (\$/BOB)		6.59
NPV @ 10.0% (\$/BOB)		11.82
NPV @ 5.0% (\$/BOB)		21.89

COMPANY SHARE

	1st Year	Average	Royalties	Oper Costs	FR After Roy&Oper	Capital Costs	Future NetRev
% Interest	100.0	100.0					
% of Future Revenue			18.0	12.8	63.8	7.7	56.1

Table 4c

U.S. FUTURE NET REVENUE & INCOME TAX SUMMARY:

ERGO v7.43 P2 ENERGY SOLUTIONS TOTAL  
 GLOBAL : 09-JAN-2017 6277  
 EFF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-JAN-2016  
 RUN DATE: 11-JAN-2017 TIME: 10:42  
 FILE:

EVALUATION BY  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR  
 PROJECT - FORECAST PRICES & COSTS

Year	FR After Roy&Oper -M\$-	Capital Costs -M\$-	Aband Costs -M\$-	Admin + Oth Income -M\$-	Future Net Rev Before Tax		Taxable Income		Income Tax			Future Net Rev After Tax	
					Annual -M\$-	Cum -M\$-	Before Deduct -M\$-	After Deduct -M\$-	Federal -M\$-	State -M\$-	Total -M\$-	Annual -M\$-	Cum -M\$-
2016	10	0	0	-10	10	10	10	0	0	0	0	10	10
2017	1869	7104	0	-1869	-5235	-5226	1869	0	0	0	0	-5235	-5226
2018	8850	17532	0	-8850	-8682	-13907	8850	0	0	0	0	-8682	-13907
2019	18745	12546	90	-384	6109	-7798	18745	0	0	0	0	6109	-7798
2020	28271	16701	0	0	11570	3772	28271	4023	1368	0	1368	10202	2404
2021	41188	27585	0	0	13603	17376	41188	18187	6184	0	6184	7420	9824
2022	60275	25092	0	0	35183	52558	60275	37379	12709	0	12709	22474	32298
2023	63853	0	0	0	63853	116412	63853	58554	19908	0	19908	43945	76243
2024	51642	0	0	0	51642	168054	51642	46463	15797	0	15797	35845	112088
2025	41279	0	0	0	41279	209333	41279	36085	12269	0	12269	29011	141098
2026	33963	0	0	0	33963	243296	33963	28819	9798	0	9798	24165	165263
2027	30053	0	0	0	30053	273349	30053	29880	10159	0	10159	19893	185156
2028	27264	0	0	0	27264	300613	27264	27100	9214	0	9214	18050	203206
2029	25500	0	0	0	25500	326113	25500	25344	8617	0	8617	16883	220089
2030	24693	0	0	0	24693	350806	24693	24545	8345	0	8345	16348	236437
SUB	457456	106560	90	-11112	350806		457456	336379	114369	0	114369	236437	
REM	553804	14817	1575	0	537413		553804	539043	183275	0	183275	354138	
TOT	1011260	121377	1665	-11112	888219		1011260	875422	297643	0	297643	590575	

NET PRESENT VALUE (-M\$-)	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
Future net revenue before tax	888219	408751	277878	220758	178611	133721	87372
Total income tax	297643	136465	92848	73916	60006	45262	30138
Future net revenue after tax	590575	272286	185030	146842	118605	88459	57234

Table 4d

EVALUATION OF: LAK Ranch Heavy Oil Field - Probable

ERGO v7.43 P2 ENERGY SOLUTIONS PAGE 1  
 GLOBAL : 09-JAN-2017 6277  
 BFF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-AUG-2017  
 RUN DATE: 11-JAN-2017 TIME: 10:39  
 FILE: HlrPRI.DAX

WELL/LOCATION - 90 locations (Newcastle)  
 EVALUATED BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

UNIT FACTOR - 100.0000 %  
 TOTAL RESERVES - 13211 MSTB  
 PRODUCTION TO DATE - N/A  
 DECLINE INDICATOR - EXPONENTIAL  
 TOTAL CAPITAL COSTS - 106560 -M\$-  
 TOTAL ABANDONMENT - 1350 -M\$- (2041)

INTEREST

AVG WI 100.0000%

ROYALTIES/TAXES

AVG FH 12.97% + SEVERANCE TAX + AD-VALOREM TAX

Year	# of Wells	Price \$/STB	Oil		Company Share	
			MSTB		Gross Net	
			Pool STB/D	Vol	Gross	Net
2016	0	45.50	0	0	0	0
2017	6	50.50	384.0	59	59	51
2018	18	60.50	656.0	239	239	208
2019	30	65.50	1262.0	461	461	401
2020	42	70.50	1742.0	636	636	553
2021	66	73.50	2425.0	885	885	770
2022	90	76.50	3379.0	1233	1233	1073
2023	90	77.50	3519.0	1284	1284	1118
2024	90	79.14	2802.0	1023	1023	890
2025	90	80.81	2211.0	807	807	702
2026	90	82.52	1797.0	656	656	571
2027	90	84.26	1566.0	572	572	497
2028	90	86.03	1398.0	510	510	444
2029	90	87.85	1284.0	469	469	408
2030	90	89.69	1218.0	445	445	387
SUB				9278	9278	8075
REM				3932	3932	3422
TOT				13211	13211	11497

COMPANY SHARE FUTURE NET REVENUE

Year	Company Share Future Revenue (FR)				Royalties		Wellhead Taxes		Oper Costs		Proc & Other	Capital	Aband	Future Net Revenue						
	Oil	SaleGas	Products	Total	State	Other	Sev	Ad-val	Fixed	Variabl				FR After Roy&Oper	Income	Costs	Undiscounted		10.0%	
																	-M\$-	-M\$-	-M\$-	-M\$-
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2017	2967	0	0	2967	0	385	155	157	66	454	1750	0	7104	0	-5354	-5354	-5064	-5064		
2018	14486	0	0	14486	0	1879	756	768	475	1851	8757	0	17532	0	-8775	-14129	-7545	-12609		
2019	30171	0	0	30171	0	3913	1575	1599	792	3561	18730	0	12546	0	6184	-7945	4834	-7775		
2020	44826	0	0	44826	0	5814	2341	2376	1109	4915	28271	0	16701	0	11570	3625	8222	447		
2021	65057	0	0	65057	0	8438	3397	3448	1743	6842	41188	0	27585	0	13603	17229	8788	9234		
2022	94350	0	0	94350	0	12237	4927	5001	2377	9534	60275	0	25092	0	35183	52412	20661	29895		
2023	99544	0	0	99544	0	12911	5198	5276	2377	9929	63853	0	0	0	63853	116265	34089	63985		
2024	80939	0	0	80939	0	10498	4226	4290	2377	7906	51642	0	0	0	51642	167907	25064	89048		
2025	65215	0	0	65215	0	8458	3405	3456	2377	6238	41279	0	0	0	41279	209186	18213	107261		
2026	54125	0	0	54125	0	7020	2826	2869	2377	5070	33963	0	0	0	33963	243149	13623	120884		
2027	48162	0	0	48162	0	6247	2515	2553	2377	4418	30053	0	0	0	30053	273202	10958	131842		
2028	43899	0	0	43899	0	5694	2292	2327	2377	3944	27264	0	0	0	27264	300466	9038	140880		
2029	41172	0	0	41172	0	5340	2150	2182	2377	3623	25500	0	0	0	25500	325966	7684	148564		
2030	39873	0	0	39873	0	5172	2082	2113	2377	3437	24693	0	0	0	24693	350659	6765	155329		
SUB	724786	0	0	724786	0	94004	37847	38415	25580	71721	457219	0	106560	0	350659		155329			
REM	360130	0	0	360130	0	46708	18805	19087	21821	30398	223311	0	0	1350	221961		38388			
TOT	1084916	0	0	1084916	0	140712	56652	57502	47401	102119	680530	0	106560	1350	572620		193718			

NET PRESENT VALUE (-M\$-)

PROFITABILITY

Discount Rate								
	10%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%	
FR After Roy & Oper.	680530	409256	315801	269868	233126	190497	141396	
Proc & Other Income	0	0	0	0	0	0	0	
Capital Costs	106560	89375	80976	76021	71514	65486	57057	
Abandonment Costs	1350	407	204	130	83	43	15	
Future Net Revenue	572620	319474	234622	193718	161529	124968	84324	
COMPANY SHARE								
	1st Year	Average	Royalties	Oper Costs	FR After Roy&Oper	Capital Costs	Future NetRev	
% Interest	100.0	100.0						
% of Future Revenue			18.2	13.8	62.7	9.8	52.8	

COMPANY SHARE BASIS		Before Tax
Rate of Return (%)		81.1
Profit Index (undisc.)		5.3
(disc. @ 10.0%)		2.5
(disc. @ 5.0%)		3.6
First Payout (years)		3.8
Total Payout (years)		5.2
Cost of Finding (\$/BOE)		8.17
NPV @ 10.0% (\$/STB)		14.66
NPV @ 5.0% (\$/STB)		24.18

Table 4a

EVALUATION OF: LAK Ranch Heavy Oil Field - Possible

ERGO v7.43 P2 ENERGY SOLUTIONS PAGE 1  
 GLOBAL : 11-JAN-2017 6277  
 EFF:01-DEC-2016 DISC:01-DEC-2016 PROD:01-JAN-2040  
 RUN DATE: 11-JAN-2017 TIME: 10:42  
 FILE: HlrPS1.DAX

WELL/LOCATION - 100 locations (Upper & Middle Newcastle)  
 EVALUATED BY -  
 COMPANY EVALUATED - Maha Energy (US) Inc.  
 APPRAISAL FOR -  
 PROJECT - FORECAST PRICES & COSTS

UNIT FACTOR - 100.0000 %  
 TOTAL RESERVES - 5424 MSTB  
 PRODUCTION TO DATE - N/A  
 DECLINE INDICATOR - EXPONENTIAL  
 TOTAL CAPITAL COSTS - 14817 -M\$-  
 TOTAL ABANDONMENT - 225 -M\$- (2047)

INTEREST

AVG WI 100.0000%

ROYALTIES/TAXES

AVG FH 12.97% + SEVERANCE TAX + AD-VALOREM TAX

Year	# of Wells	Price \$/STB	Oil MSTB		Company Share	
			Pool		Gross	Net
			STB/D	Vol		
2016	0	45.50	.0	0	0	0
2017	0	50.50	.0	0	0	0
2018	0	60.50	.0	0	0	0
2019	0	65.50	.0	0	0	0
2020	0	70.50	.0	0	0	0
2021	0	73.50	.0	0	0	0
2022	0	76.50	.0	0	0	0
2023	0	77.50	.0	0	0	0
2024	0	79.14	.0	0	0	0
2025	0	80.81	.0	0	0	0
2026	0	82.52	.0	0	0	0
2027	0	84.26	.0	0	0	0
2028	0	86.03	.0	0	0	0
2029	0	87.85	.0	0	0	0
2030	0	89.69	.0	0	0	0
2031	0	91.58	.0	0	0	0
2032	0	91.58	.0	0	0	0
2033	0	91.58	.0	0	0	0
2034	0	91.58	.0	0	0	0
2035	0	91.58	.0	0	0	0
2036	0	91.58	.0	0	0	0
2037	0	91.58	.0	0	0	0
2038	0	91.58	.0	0	0	0
2039	0	91.58	.0	0	0	0
2040	30	91.58	1920.0	701	701	610
2041	66	91.58	3403.0	1242	1242	1081
2042	90	91.58	3483.0	1271	1271	1106
2043	100	91.58	2633.0	961	961	836
2044	70	91.58	1506.0	550	550	478
2045	34	91.58	862.0	315	315	274
2046	10	91.58	678.0	247	247	215
2047	0	91.58	375.3	137	137	137
SUB				5424	5424	4738
REM				0	0	0
TOT				5424	5424	4738

COMPANY SHARE FUTURE NET REVENUE

Year	Company Share Future Revenue (FR)				Royalties	Wellhead Taxes	Oper Costs		Proc& Other Roy&Oper	Capital Costs	Aband Costs	Future Net Revenue						
	Oil -M\$-	SaleGas -M\$-	Products -M\$-	Total -M\$-			State -M\$-	Sev -M\$-				Ad-val -M\$-	Fixed Variabl -M\$-	Undiscounted		10.0%		
														Annual -M\$-	Cum -M\$-	Annual -M\$-	Cum -M\$-	
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2026	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2028	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2035	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2036	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2037	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2038	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2039	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2040	64179	0	0	64179	0	8324	3351	3402	792	5417	42893	0	900	0	41993	41993	4435	4435



2041	113751	0	0	113751	0	14753	5940	6029	1743	9601	75684	0	1080	0	74604	116597	7164	11599
2042	116425	0	0	116425	0	15100	6079	6171	2377	9827	76871	0	2382	0	74489	191086	6502	18101
2043	88013	0	0	88013	0	11415	4596	4665	2641	7429	57267	0	10455	0	46812	237898	3715	21816
2044	50341	0	0	50341	0	6529	2629	2668	1849	4249	32417	0	0	0	32417	270315	2339	24155
2045	28814	0	0	28814	0	3737	1505	1527	898	2432	18715	0	0	0	18715	289029	1227	25382
2046	22663	0	0	22663	0	2939	1183	1201	264	1913	15162	0	0	0	15162	304192	904	26286
2047	12544	0	0	12544	0	0	0	0	0	1059	11485	0	0	225	11260	315452	610	26896

SUB	496730	0	0	496730	0	62798	25283	25662	10565	41928	330493	0	14817	225	315452		26896	
REM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
TOT	496730	0	0	496730	0	62798	25283	25662	10565	41928	330493	0	14817	225	315452		26896	

===== NET PRESENT VALUE (-M\$-) =====

Discount Rate	.0%	5.0%	8.0%	10.0%	12.0%	15.0%	20.0%
FR After Roy & Oper.	330493	93334	45126	28145	17720	9003	3038
Proc & Other Income	0	0	0	0	0	0	0
Capital Costs	14817	4151	1993	1236	774	389	129
Abandonment Costs	225	51	21	12	7	3	1
Future Net Revenue	315452	89132	43112	26896	16939	8611	2908

===== PROFITABILITY =====

COMPANY SHARE BASIS	Before Tax
Rate of Return (%)	999.9
Profit Index (undisc.)	21.0
(disc. @ 10.0%)	21.5
(disc. @ 5.0%)	21.2
First Payout (years)	23.1
Total Payout (years)	23.4
Cost of Finding (\$/BOB)	2.77
NPV @ 10.0% (\$/STB)	4.96
NPV @ 5.0% (\$/STB)	16.43

===== COMPANY SHARE =====

	1st Year	Average	Royalties	Oper Costs	FR After Roy&Oper	Capital Costs	Future NetRev
% Interest	100.0	100.0					
% of Future Revenue			17.7	10.6	66.5	3.0	63.5

**Appendix A  
Summary of Analog Analysis**

**December 1, 2015**

**LAK Ranch Heavy Oil Field, Wyoming USA**

**Analog for**

Well LAK Ranch, Wyoming

Zone Lower Newcastle

**Analog Property**

Reference

Field Chauvin, Alberta, Canada

Pool Lloydminster D

Ultimate reserves	978	MSTB	Attachment 1b
Number of Wells	8		Attachment 1d
Ave Reserves/well	<b>122</b>	MSTB	Calculated
Average Initial Rate	<b>45</b>	STB/d	Attachment 1c

**Attachments**

- 1a) Group Production Plot
- 1b) Group Rate vs. Cum. Plot
- 1c) Normalized Production Plot
- 1d) Well List - Analog

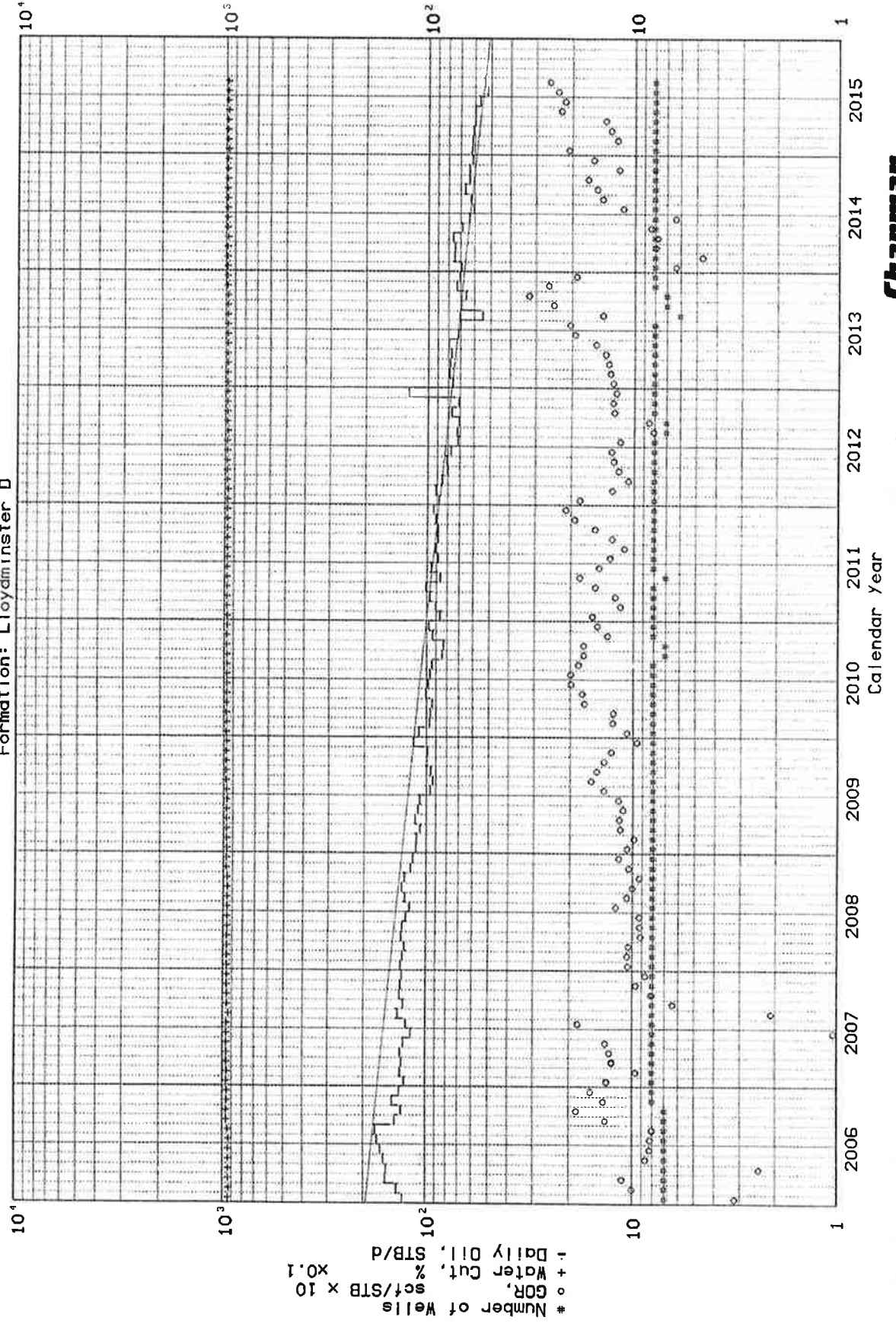
**Notes**

The Chauvin Lloydminster D pool, Alberta, Canada has been chosen as a confirming analog for the LAK Ranch Lower Newcastle pool in Wyoming, USA. The production forecast and reserves for LAK Ranch are based on work done by RPS Knowledge Reservoir and reviewed by Chapman on this property. The Chauvin pool with very similar oil and rock properties and a predicted recovery factor of 32 % confirms the reasonableness of the RPS forecast of a 20.75% recovery factor.

PRODUCTION HISTORY

Analog for LAK Ranch

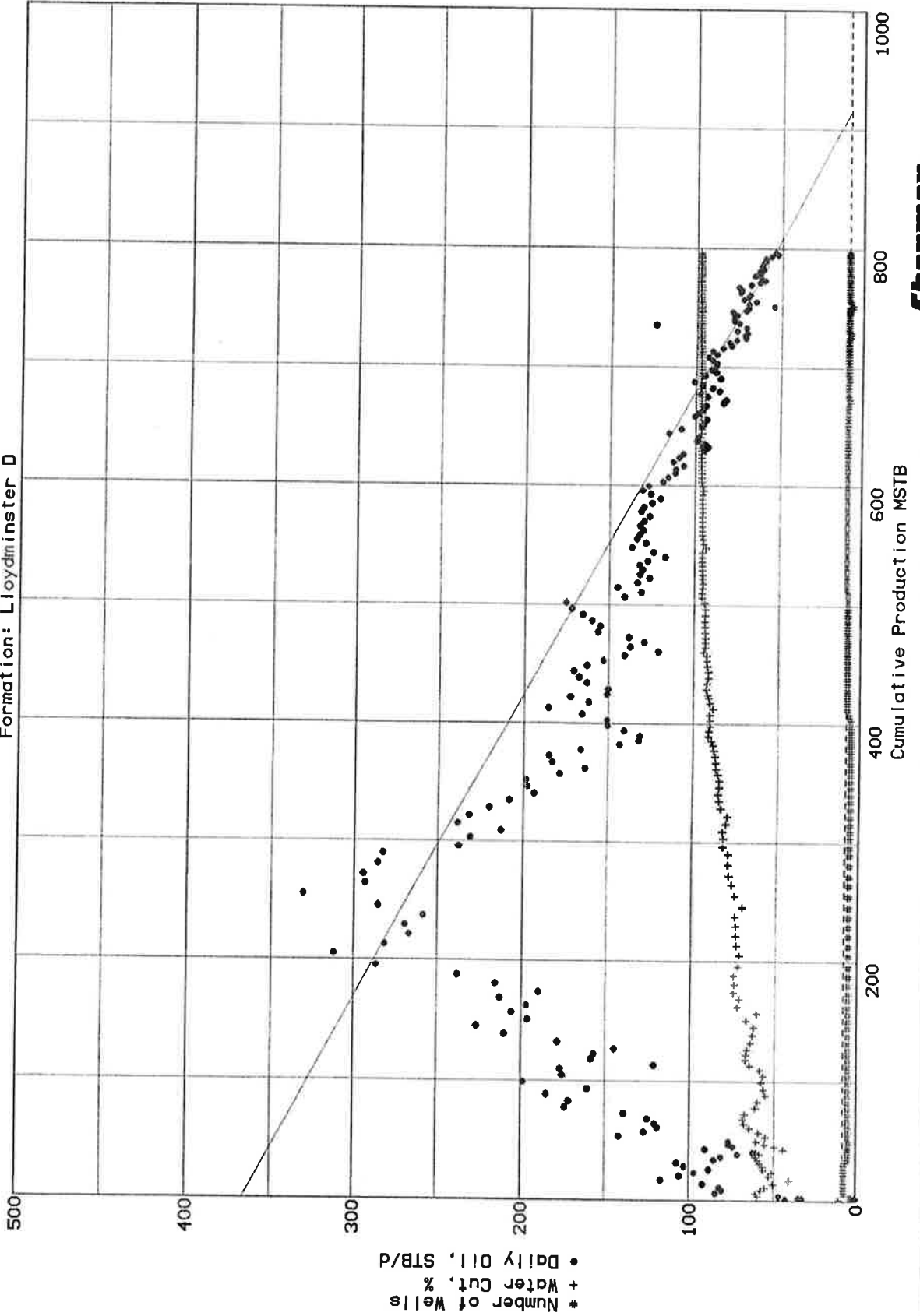
Field: Chauvin, Alberta  
Formation: Lloydminster D



PRODUCTION HISTORY

Analog for LAK Ranch

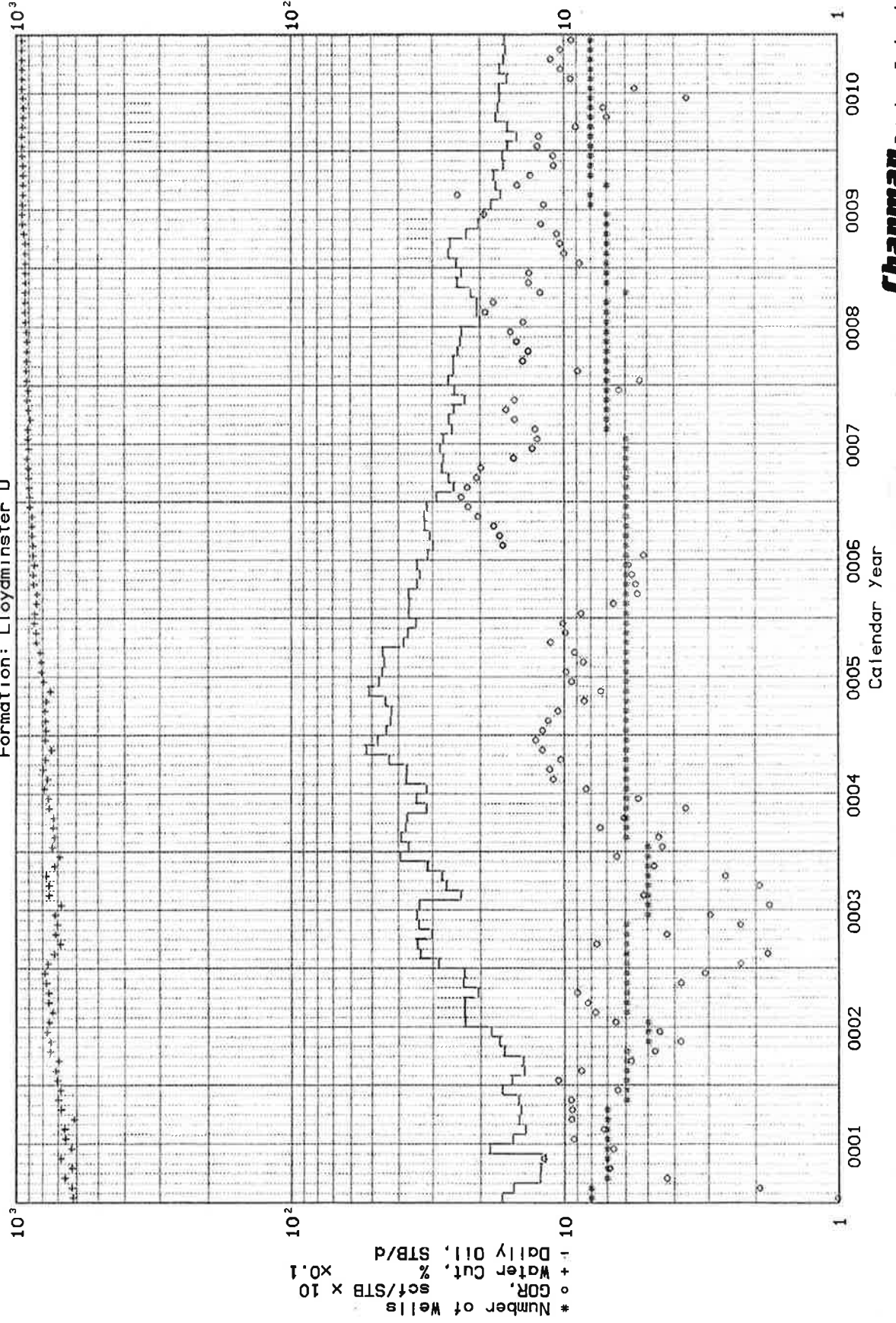
Field: Chauvin, Alberta  
Formation: Lloydminster D



PRODUCTION HISTORY

Analog for LAK Ranch - Normalized

Field: Chauvin, Alberta  
Formation: Lloydminster D



Attachment 1d

Well List - Analog Wells

1	00/10-25-043-01	W4M/02	Field: CHAUVIN	Formation: LLOYDMINSTER	D
2	04/10-25-043-01	W4M/00	Field: CHAUVIN	Formation: LLOYDMINSTER	D
3	05/10-25-043-01	W4M/02	Field: CHAUVIN	Formation: LLOYDMINSTER	D
4	03/15-25-043-01	W4M/00	Field: CHAUVIN	Formation: LLOYDMINSTER	D
5	04/15-25-043-01	W4M/00	Field: CHAUVIN	Formation: LLOYDMINSTER	D
6	00/16-25-043-01	W4M/02	Field: CHAUVIN	Formation: LLOYDMINSTER	D
7	03/16-25-043-01	W4M/00	Field: CHAUVIN	Formation: LLOYDMINSTER	D
8	02/01-36-043-01	W4M/00	Field: CHAUVIN	Formation: LLOYDMINSTER	D

**Attachment 1e**

**Comparison Table of Analog for LAK Ranch, Wyoming - Newcastle Formation**

Analog : Chauvin, Alberta - Lloydminster D Pool

	<b>LAK Ranch</b>	<b>Chauvin</b>
<b>Rock Properties</b>		
Depth ft	640 to 2015	2222
	Sandstone	Sandstone
Age	Lower to Middle Cretaceous	Lower Cretaceous
Pay Thickness ft	9	12
Porosity	20 to 30%	31%
Water saturation	22%	34%
Permeability md	900	~1000
 <b>Fluid Properties</b>		
Oil °API	19	19
Formation Volume Factor	1.02	1.03
Gas Oil Ratio (SCF/STB)	6	79
Oil Viscosity cp	1270 @ 70°F 315 @ 90°F 60 @ 140°F 16 @ 194°F	~1000 @ 75°F
Water Salinity	low	low
 <b>Pressure/ Temperature</b>		
Temperature °F	90	76
Pressure psia	639	674
Drive Primary	none	weak
Secondary	water injection	water injection
Wells	horizontal producers	horizontal producers
Development Stage	early, test production only	Mature, 26% RF to date 18 years of water flood operations

**GLOSSARY OF TERMS  
(Abbreviations & Definitions)**

**General**

BIT	- Before Income Tax
AIT	- After Income Tax
M\$	- Thousands of Dollars
Effective Date	- The date for which the Present Value of the future cash flows and reserve categories are established
\$US	- United States Dollars
WTI	- West Texas Intermediate – the common reference for crude oil used for oil price comparisons
ARTC	- Alberta Royalty Tax Credit
GRP	- Gas Reference Price

**Interests and Royalties**

BPO	- Before Payout
APO	- After Payout
APPO	- After Project Payout
Payout	- The point at which a participant's original capital investment is recovered from its net revenue
GORR	- Gross Overriding Royalty – percentage of revenue on gross revenue earned (can be an interest or a burden)
NC	- New Crown – crown royalty on petroleum and natural gas discovered after April 30, 1974
SS 1/150 (5%-15%) Oil	- Sliding Scale Royalty – a varying gross overriding royalty based on monthly production. Percentage is calculated as 1-150 <sup>th</sup> of monthly production with a minimum percentage of 5% and a maximum of 15%
FH	- Freehold Royalty
P&NG	- Petroleum and Natural Gas
Twp	- Township
Rge	- Range
Sec	- Section



## Technical Data

psia	- Pounds per square inch absolute
MSTB	- Thousands of Stock Tank Barrels of oil (oil volume at 60 F and 14.65 psia)
MMscf	- Millions of standard cubic feet of gas (gas volume at 60 F and 14.65 psia)
Bbls	- Barrels
Mbbbls	- Thousands of barrels
MMBTU	- Millions of British Thermal Units – heating value of natural gas
STB/d	- Stock Tank Barrels of oil per day – oil production rate
Mscf/d	- Thousands of standard cubic feet of gas per day – gas production rate
GOR (scf/STB)	- Gas-Oil Ratio (standard cubic feet of solution gas per stock tank barrel of oil)
mKB	- Metres Kelly Bushing – depth of well in relation to the Kelly Bushing which is located on the floor of the drilling rig. The Kelly Bushing is the usual reference for all depth measurements during drilling operations.
EOR	- Enhanced Oil Recovery
GJ	- Gigajoules
Marketable or Sales Natural Gas	- Natural gas that meets specifications for its sale, whether it occurs naturally or results from the processing of raw natural gas. Field and plant fuel and losses to the point of the sale must be excluded from the marketable quantity. The heating value of marketable natural gas may vary considerably, depending on its composition; therefore, quantities are usually expressed not only in volumes but also in terms of energy content. Reserves are always reported as marketable quantities.
NGLs	- Natural Gas Liquids – Those hydrocarbon components that can be recovered from natural gas as liquids, including but not limited to ethane, propane, butanes, pentanes plus, condensate, and small quantities of non-hydrocarbons.
Raw Gas	- Natural gas as it is produced from the reservoir prior to processing. It is gaseous at the conditions under which its Volume is measured or estimated and may include varying amounts of heavier hydrocarbons (that may liquefy at atmospheric conditions) and water vapour; may also contain sulphur and other non-hydrocarbon compounds. Raw natural gas is generally not suitable for end use.
EUR	- Estimated Ultimate Recovery



January 12, 2017

**Chapman Petroleum Engineering Ltd.**  
700, 1122 – 4<sup>th</sup> Street SW  
Calgary, AB  
T2R 1M1

Dear Sir:

**Re: Company Representation Letter**

Regarding the evaluation of our Company's oil and gas reserves and independent appraisal of the economic value of these reserves for the year ended December 1, 2016, (the effective date), we herein confirm to the best of our knowledge and belief as of the effective date of the reserves evaluation, and as applicable, as of today, the following representations and information made available to you during the conduct of the evaluation:

1. We, Maha Energy Inc., (the Client) have made available to you, Chapman Petroleum Engineering Ltd. (the Evaluator) certain records, information, and data relating to the evaluated properties that we confirm is, with the exception of immaterial items, complete and accurate as of the effective date of the reserves evaluation, including the following:
  - Accounting, financial, tax and contractual data
  - Asset ownership and related encumbrance information;
  - Details concerning product marketing, transportation and processing arrangements;
  - All technical information including geological, engineering and production and test data;
  - Estimates of future abandonment and reclamation costs.
  
2. We confirm that all financial and accounting information provided to you is, to the best of our knowledge, both on an individual entity basis and in total, entirely consistent with that reported by our Company for public disclosure and audit purposes.



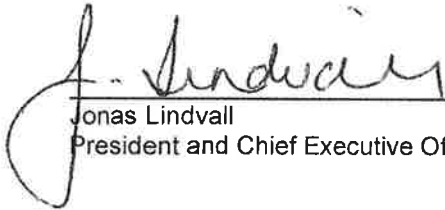
3. We confirm that our Company has satisfactory title to all of the assets, whether tangible, intangible, or otherwise, for which accurate and current ownership information has been provided.
4. With respect to all information provided to you regarding product marketing, transportation, and processing arrangements, we confirm that we have disclosed to you all anticipated changes, terminations, and additions to these arrangements that could reasonably be expected to have a material effect on the evaluation of our Company's reserves and future net revenues.
5. With the possible exception of items of an immaterial nature, we confirm the following as of the effective date of the evaluation:
  - For all operated properties that you have evaluated, no changes have occurred or are reasonably expected to occur to the operating conditions or methods that have been used by our Company over the past twelve (12) months, except as disclosed to you. In the case of non-operated properties, we have advised you of any such changes of which we have been made aware.
  - All regulatory, permits, and licenses required to allow continuity of future operations and production from the evaluated properties are in place and, except as disclosed to you, there are no directives, orders, penalties, or regulatory rulings in effect or expected to come into effect relating to the evaluated properties.
  - Except as disclosed to you, the producing trend and status of each evaluated well or entity in effect throughout the three-month period preceding the effective date of the evaluation are consistent with those that existed for the same well or entity immediately prior to this three-month period.
  - Except as disclosed to you, we have no plans or intentions related to the ownership, development or operation of the evaluated properties that could reasonably be expected to materially affect the production levels or recovery of reserves from the evaluated properties.
  - If material changes of an adverse nature occur in the Company's operating performance subsequent to the effective date and prior to the report date, we will inform you of such material changes prior to requesting your approval for any public disclosure of reserves information.




6. We hereby confirm that our Company is in material compliance with all Environmental Laws and does not have any Environmental Claims pending.

Between the effective date of the report and the date of this letter, nothing has come to our attention that has materially affected or could affect our reserves and economic value of these reserves that has not been disclosed to you.

Yours very truly,

  
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Jonas Lindvall  
President and Chief Executive Officer

  
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Ron Panchuk  
Chief Corporate Officer