# **IPAA OGIS Conference Chicago**

Elk Petroleum - An emerging Rockies CO<sub>2</sub> EOR producer





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The reserves and resources assessment follows the guidelines set forth by the Society of Petroleum Engineers – Petroleum Resource Management System (SPE-PRMS).

The Reserves and Contingent Resources in this announcement relating to the Madden Gas Field and Madden Deep Unit to be acquired from Freeport McMoRan Inc. is based on an independent review and audit conducted by Netherland, Sewell & Associates, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Shane M. Howell and Mr. John R. Cliver, both Vice Presidents of Netherland, Sewell & Associates, Inc., an independent petroleum advisory firm. Mr. Howell is a Registered Professional Geologist in the State of Texas and Mr. Cliver is a Registered Professional Engineer in the State of Texas. Mr. Howell's qualifications include Master of Science in Geological Sciences, San Diego State University and a Bachelor of Science in Geological Sciences, San Diego State University. Mr. Howell has more than 10 years of relevant experience. Mr. Cliver's qualifications include a Masters of Business Administration from the University of Texas, Austin and a Bachelor of Science in Chemical Engineering from Rice University. Mr. Cliver has more than 10 years of relevant experience. Mr. Howell and Mr. Cliver meet the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules.

The Reserves and Contingent Resources in this announcement relating to the Grieve CO<sub>2</sub> EOR project, operated by Denbury Resources, is based on an independent review and audit conducted by VSO Petroleum Consultants, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Grant Olsen, a Director of VSO Petroleum Consultants, Inc., an independent petroleum advisory firm. Mr. Olsen is a Registered Professional Engineer in the State of Texas and his qualifications include a Bachelor of Science and Master of Science (both in Petroleum Engineering) from Texas A&M University. He has more than 10 years of relevant experience. Mr. Olsen is a member of the Society of Petroleum Engineers (SPE) and an Associate Member of the Society of Petroleum Evaluation Engineers. Mr. Olsen meets the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules and consents to the inclusion of this information in this report.

The information in this ASX release or presentation that relates to Reserve and Contingent Resource estimates for the Grieve CO<sub>2</sub> EOR project and the Reserve and Contingent Resource estimates for the newly acquired Madden Deep Gas Field and the Madden Deep Unit Singleton CO<sub>2</sub> EOR project have been compiled and prepared by Mr. David Evans, COO and Mr. Brian Dolan, COO-USA and VP-Engineering of Elk Petroleum Inc. who are both qualified persons as defined under the ASX Listing Rule 5.11 and both have consented to the use of the reserves figures in the form and context in which they appear in this presentation.

Mr. Evans is a full-time employee of the company. Mr. Evans earned a Bachelor of Science with Honours in Geology from the University of London, United Kingdom, a Post Graduate Diploma, Petroleum Exploration from Oxford Brookes University, United Kingdom and a Master of Applied Science, Geology from the University of Canberra and Australian National University in Canberra, ACT. Mr. Evans has more than 30 years of relevant experience. Mr. Evans has sufficient experience that is relevant to the company's Reserves and Resources to qualify as a Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr. Evans consents to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

Mr. Dolan is a full-time employee of the company. Mr. Dolan earned a degree in Mechanical Engineering from the University of Colorado at Boulder. Mr. Dolan has more than 24 years of relevant experience. Mr. Dolan has sufficient experience that is relevant to the company's Reserves and Resources to qualify as a Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr. Dolan consents to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.



# **Corporate Overview**

# Conventional Oil

- Elk is focused on redevelopment of conventional oil fields through enhanced oil recovery ("EOR")
- With Aneth acquisition, Elk becomes the 2<sup>nd</sup> biggest ASX Mid-Tier Oil & Gas company by reserves & production

# Proven Practices

- EOR is a well established, low risk production methodology ~90% success rate
- Engineering not exploration and candidate selection is critical

# Production Focused

- CO<sub>2</sub> EOR focus provides opportunity for low risk, long-term production growth
- Abundance of large mature conventional oil fields suitable for CO<sub>2</sub> EOR redevelopment

# Long term Profits

- EOR can deliver competitive, low cost, high margin production & annuity style cash flows
- Main assets have forecast 40-50 year production lives & significant growth potential

# Cash Flow Positive

Forecast 2018 EBITDA of ~US\$50 million and free cash flow of US\$17 million<sup>(1)</sup>

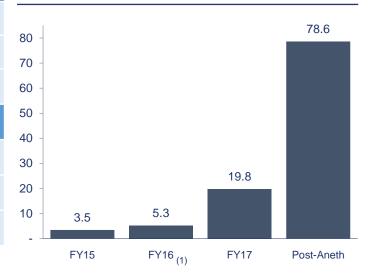


# **Financial Snapshot**

Financial Overview	Current	Post-Aneth
Market capitalization	USD 65m	USD 135m
PV <sub>10</sub>	USD 124	USD 285m
Long term debt	USD 72.5m	USD 170.5m
Debt to EBITDA		
R/P ratio		
Reserves (MMBOE)		
PDP	11.2	40.3
1P	12.5	43.7
2P	19.8	78.6
Production (BOE/day)		
Existing Assets (Current)	4,000	4,000
Aneth Acquisition	-	6,000
Total	4,000	10,000



**Elk 2P Reserves Growth (MMBOE)** 





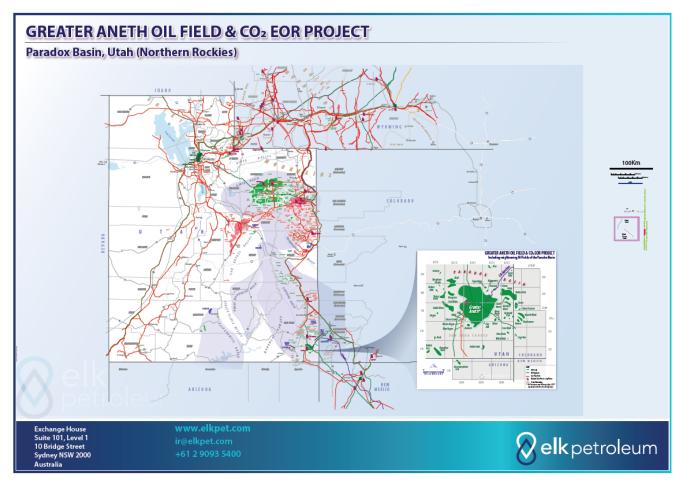
# **Our core assets - Wyoming**



Vast CO<sub>2</sub> reserves, extensive CO<sub>2</sub> infrastructure, multiple CO<sub>2</sub> EOR operating projects and numerous new projects for development



## Our newest asset - Utah



Vast CO<sub>2</sub> reserves, extensive CO<sub>2</sub> infrastructure, multiple CO<sub>2</sub> EOR operating projects and numerous new projects for development



### **Foundations For Growth**



# 30, Sources

 Direct investment in CO<sub>2</sub> supplies

- Control of CO<sub>2</sub> essential
- Competitive advantage
- Potential profit as 3<sup>rd</sup> party supplier
- Core focus moving forward



# **EOR Project Fields**

 Ownership & development of CO<sub>2</sub> EOR Projects

- Main financial engine room
- Small club of competitors
- Already a recognized player
- Long-term, low risk cash flows



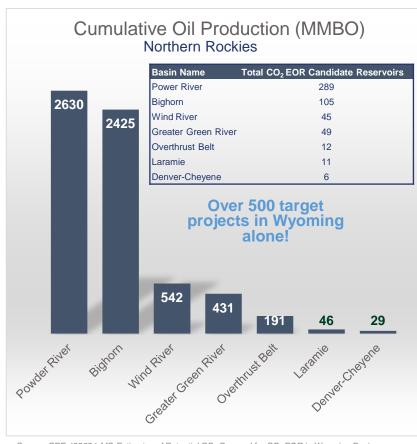
# Production Infrastructure

- Oil & CO<sub>2</sub>
   pipelines, gas
   processing
- Grieve Oil Pipeline shows value of 3<sup>rd</sup> party revenues
- Potential additional value in CCS



#### CO<sub>2</sub> EOR – Material Energy Sector Business in the Rockies

- Elk well established in the Northern Rockies CO<sub>2</sub>
   EOR Production Fairway with Grieve and Madden
- Solid platform for organic and acquisition growth
- Wyoming is the 4<sup>th</sup> largest gas producing state and the 10<sup>th</sup> largest oil producing state in the USA
- Wyoming contains one of largest proven developed CO<sub>2</sub> reserves - 10 TCF - in US with resource potential of 100 TCF
- Favourable regulatory environment
- Many significant CO<sub>2</sub> EOR production project acquisition opportunities are available
- Over 500 target CO<sub>2</sub> EOR projects have been identified in Wyoming alone



Source: SPE-122921-MS-Estimates of Potential CO2 Demand for CO2 EOR in Wyoming Basins

Significant growth potential with deep pipeline of attractive projects







# **Grieve Project Overview**

#### Asset overview and ownership

- Carbon Dioxide Enhanced Oil Recovery (CO<sub>2</sub> EOR) project- redevelopment of producing conventional oil field
- · Located in Wind River Basin, Northern Rockies, Wyoming
- Elk 49% working interest and ~60% economic interest<sup>1</sup>
- 51% owned and operated by Denbury Resources, North America's leading CO<sub>2</sub> EOR oil development & production company

#### **Project construction nearing completion**

- Fixed time and cost construction contract with Denbury
- ELK is funding US\$55m remaining construction works, fully funded with senior debt and equity financing in place
- Project construction over 90% complete, production expected late 2017/early 2018

#### **Favourable economics**

- Elk to receive 75% of the operating profit from 1st million barrels and 65% from 2nd million barrels
- Enhanced revenue stream from 100% Grieve Oil Pipeline
- Forecast annual project free cash flow for first 5-years averages US\$17-19 million pa<sup>(1,2,3,4)</sup>

Grieve Project Economics (US\$)	
Project life	20 years
Capex invested to date	\$168.5m
Remaining capex spend	\$5.5m
Development cost	\$7-10/bbl
Operating cost (First 5 years, including all royalties and production taxes, real)	\$19-21/bbl
Profit margin (First 5 years, real)(2,3,4)	\$27-32/bbl
Total projected revenue (Project life, post royalties and production taxes) <sup>(2,3,4)</sup>	\$245-287m
First 5 years annual project free cash flow <sup>(2,3,4)</sup>	\$17-19m p.a.

#### Grieve CO<sub>2</sub> EOR Project Reserves & Resources

Scenario	(MMbbl)	
	Gross	Net
2P (Proved + Probable Reserves)	12.3	5.3
3P (Proved + Probable + Possible)	16.4	7.0
3C (Contingent Resources)	16.3	7.0



<sup>1)</sup> Refer Elk ASX announcement 05 August 2016 Detailing revised joint venture structure

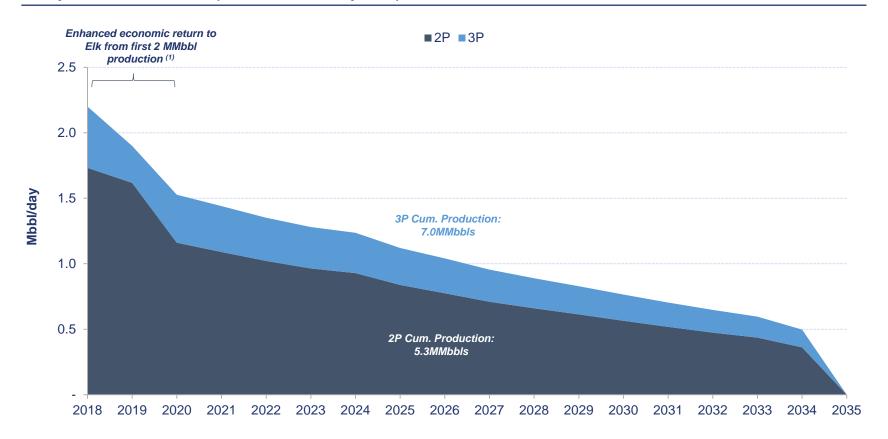
<sup>(2)</sup> Range: Futures (13 September 2017) and Bloomberg Consensus Pricing (23 August 2017) for 2P production profile

<sup>(3)</sup> Inclusive of Grieve Oil pipeline revenue, royalties and productions taxes(4) Net to Elk

#### **Grieve Production Rate**

Elk's net share of average production over the first 5 years is estimated to be between 1.3 and 1.7 Kbbl/day

Daily Production: 2P & 3P (Net to Elk, Post Royalties)(1,2,3)





<sup>1)</sup> Refer to Elk announcement dated 05 August 2016 for more detailed JV re-structure information

<sup>2)</sup> Economic cut-off based on Bloomberg Consensus Pricing (30 June 2017)

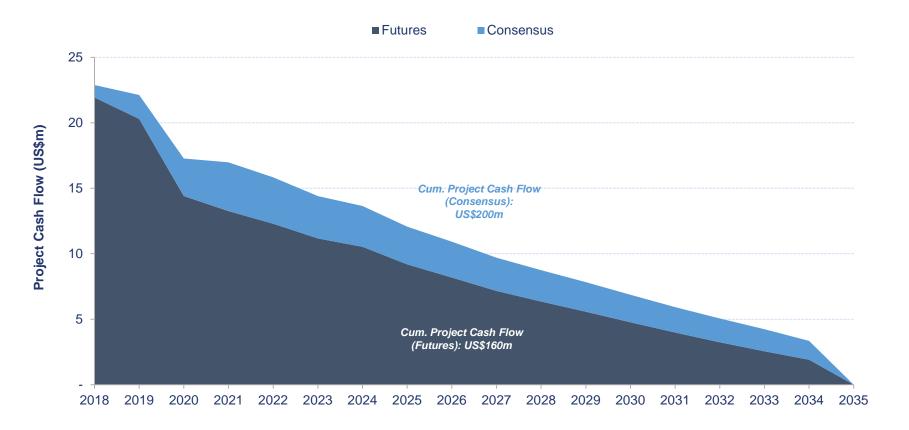
<sup>3)</sup> Net to Elk inclusive of the production sweep arrangement

# **Grieve Project Free Cash Flow**

The Grieve Project will generate strong and stable cash flows from first oil

Project Cash Flow (Net to Elk, US\$m, Nominal) (1,2)

Post Royalties, Production Taxes, Opex and Capex









# Madden/Lost Cabin Project Overview

#### Asset overview and ownership

- Madden/Lost Cabin is a conventional natural gas production asset with CO<sub>2</sub> and sulphur by-products
- Located in Wind River Basin, Northern Rockies, Wyoming (90 miles west of Casper & 60 miles from the Grieve Project)
- Elk ~14% working interest (effective 1 January 2017)
- 46% owned and operated by Conoco Philips

#### Elk now a profitable production company

- Elk's current production (30 June) ~25.4 MMSCF/day (4,240 BOE/day).
- YTD 30 Jun 17 production 22.9 MCF/d (3,800 boe/d).
- 24 month Henry Hub gas price hedging in place
- Reserves independently certified by Netherland Sewell & Associates
- Favourable operating costs of \$10.8/boe (\$1.8/mcf) and capital costs of \$1.0/boe (\$0.17/mcf)
- Moderate production maintenance capex through 2021 covered by operating cash flows

#### Madden/Lost Cabin Project Economics (US\$)

Project life (PDP Reserves)	16 years	
Capex (next 5 years, real)	\$1.0/boe	\$0.17/mcf
Operating cost (next 5 years, including all royalties and production taxes, real) (2)	\$11.2/boe	\$1.9/mcf
Profit margin (next 5 years, real) (1,2)	\$3.0-4.4/boe	\$0.5-0.75/mcf
Avg realised gas price (next 5 years, real) <sup>(1)</sup>	\$15.2-18/boe	\$2.6-2.9/mcf
Total projected revenue (Project life, post royalties and production taxes)	\$165-195m	
First 5 years annual project free cash flow <sup>(1,2)</sup>	\$3.6-5.5m p.a.	

# Madden/Lost Cabin Project Reserves & Resources (Net to Elk)

	BCF	MMBOE
PDP (Proved Developed Producing)	71.3	11.9
1P (Proved Reserves)	79.5	13.3
2P (Proved + Probable Reserves)	91.3	15.2
3P (Proved + Probable + Possible)	103.1	17.2



# Madden/Lost Cabin Project Overview (continued)

#### Madden Gas Field:

- Madden anticline discovered in 1959, first gas train constructed in late 1990's and third gas train constructed in late 2000's.
- 33rd largest gas field in US by Proven Reserves
- Operator estimated 50 year project life and ~1.9 TCF remaining recoverable gas

 Highly attractive ownership structure – entire field within a single JV unit with common operatorship

- Substantial upside from behind pipe resources
- Natural CO<sub>2</sub> source

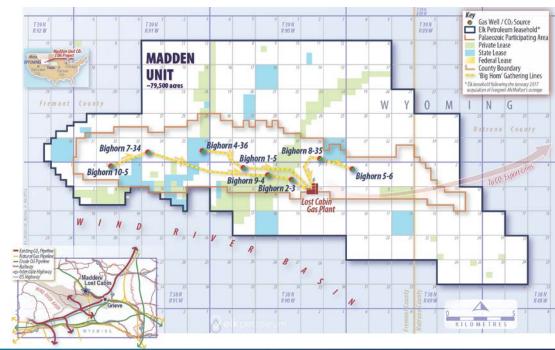
#### **Lost Cabin Gas Plant:**

- Began operation in 1995
- 3 gas trains with 310 MMcf/day capacity
- Exclusively processes gas from Madden Field
- 2nd biggest CO<sub>2</sub> supplier for EOR in Northern Rockies

#### **Greencore CO2 plant and pipeline**

 Greencore CO<sub>2</sub> Receiving Facility and Pipeline providing CO<sub>2</sub> to Denbury's Wyoming and Montana CO<sub>2</sub> EOR projects since 2013

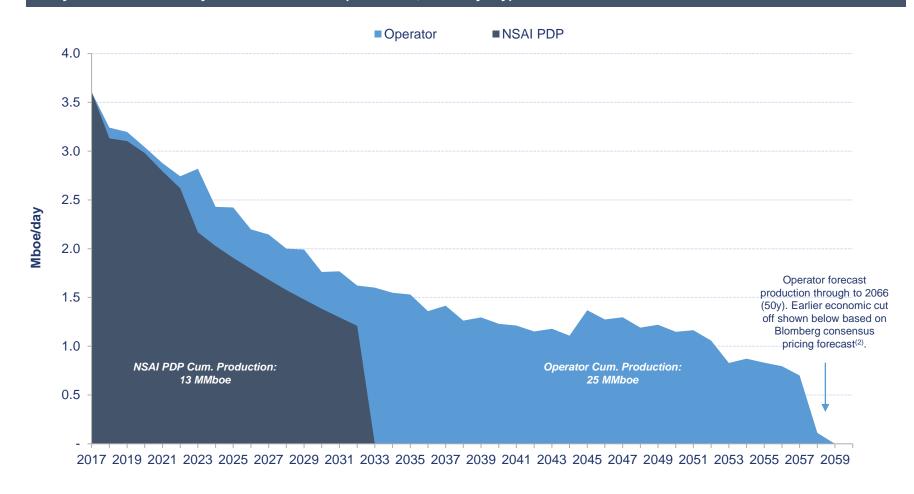
Madden/Lost Cabin Working Interests	
Conoco Phillips (Operator)	46%
Moncrief Oil	30%
Elk Petroleum	14%
Various minority interests	10%





#### **Madden/Lost Cabin Production Rate**

Daily Production Rate by Production Profile (Net to Elk, Post-royalty)(1,2)





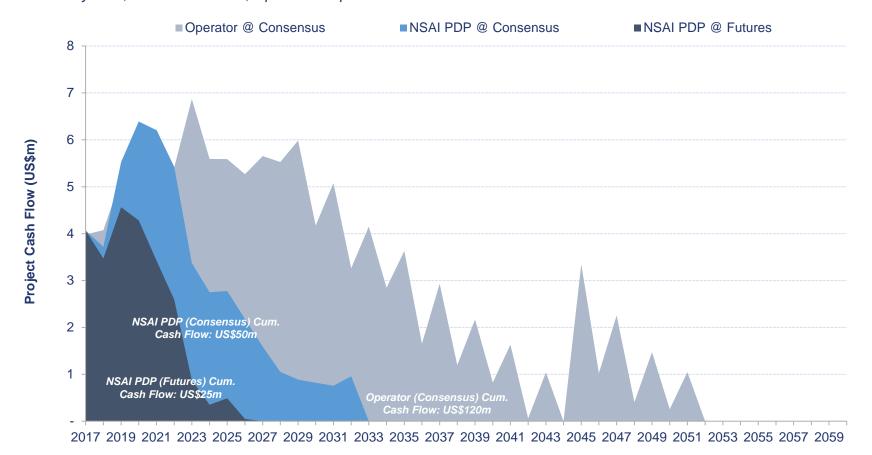
Oil equivalent volumes are expressed in thousands of barrels of oil equivalent per day (MBOED) determined using the ratio of 6 Mcf of gas to 1 barrel of oil

<sup>(2)</sup> Economic cut-off assumes Bloomberg Consensus Pricing (23 August 2017)
Source: NSAI Reserves Report (March 2017) updated for CY 2017 actuals and near-term forecasts, CoP WI Operator Meeting (April 2017)

# Madden/Lost Cabin Project Free Cash Flow

Annual Project Cash Flow by Pricing and Production Profile (Net to Elk)(1,2)

Post Royalties, Production Taxes, Opex and Capex.





# Greater Aneth Oil Field & CO<sub>2</sub> EOR Project

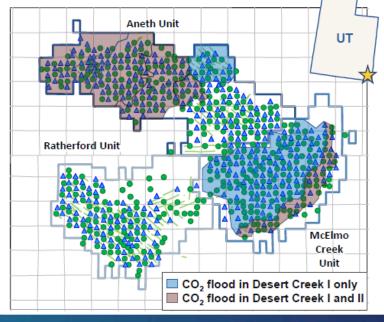




#### **Greater Aneth Oil Field Overview**

- Greater Aneth Oil Field is a world class giant oil field ranked by EIA as the 86<sup>th</sup> biggest oil field in US
- Elk acquiring 63% WI and operatorship from Resolute Energy for upfront consideration of USD 160 million
- One of 3 biggest CO<sub>2</sub> EOR projects in Rocky Mountains
- Productive partnership with Navajo Nation Oil & Gas Corporation (~37%) JV interest partner
- Long-term CO<sub>2</sub> supply from McElmo Dome CO<sub>2</sub> Field one of world's largest CO<sub>2</sub> sources
- Potential for new CO<sub>2</sub> supply to be sourced from reservoir discovered deeper within Greater Aneth Field
- Further contingent oil price payments up to USD 35 million

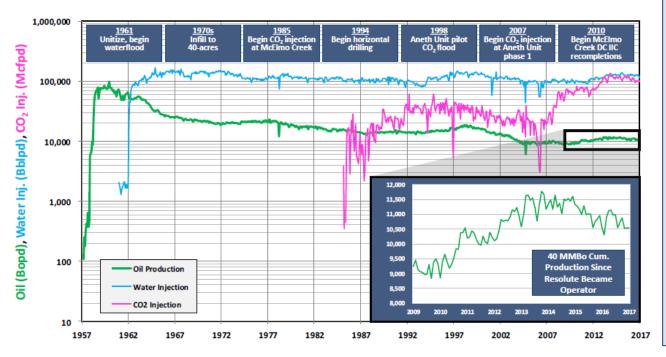






# **History of Aneth field**

- Long history of continuous oil production since late 1950's
- Historical operators include Texaco, Mobil and Exxon
- Mobil and Texaco successfully initiated CO<sub>2</sub> EOR floods
- 1.5 billion bbls OOIP of light, sweet crude
- 448 mmbbls cumulative production to date 31% recovery



#### **History of Aneth Field**

- Discovered 1956
- Oil production peaked at 100,000 BOPD in 1960
- Waterflooding commenced 1961
- Mobil successfully initiated CO<sub>2</sub> flood in 1984 within McFlmo Creek Unit
- Texaco successful CO<sub>2</sub> EOR pilot in Aneth Unit in 1998
- Exxon drilling program in preparation for Ratherford Unit CO2 flood between 1995-1998
- Resolute acquired Texaco interest from Chevron in 2004
- Resolute commences expansion of Aneth Unit CO<sub>2</sub> flood in 2007
- Resolute consolidates ownership/ operatorship of entire Greater Aneth Field – 2004-2009
- Resolute operator for past 12 years
- Resolute & NNOG have invested ~USD 1.1 Billion gross capital 2004-2015



# **Organic Growth Opportunities at Aneth**

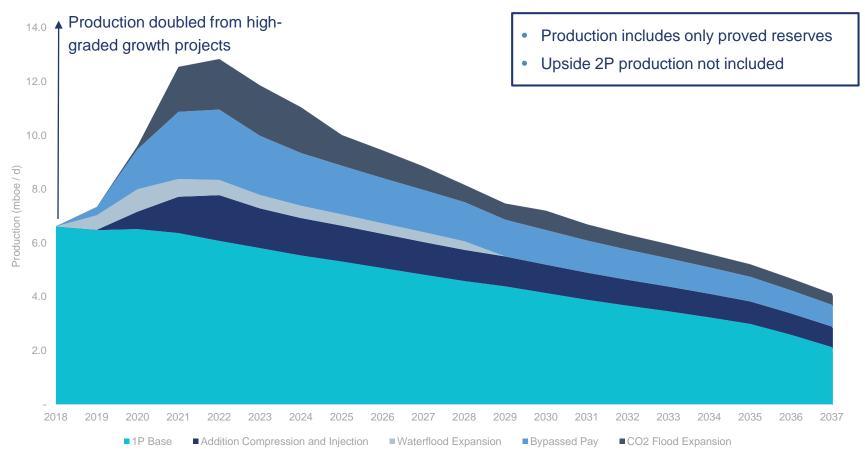
Significant growth projects funded from operating cash flow that can add a further ~6,000bopd

1	Elk Net Production	n
Additional Compression	~500 bopd	<ul> <li>Increase CO<sub>2</sub> recycle capacity allowing additional CO<sub>2</sub> injection</li> <li>Delivers faster processing rate and incremental oil production</li> <li>Increases number of wells producing on free flow</li> <li>Eliminates well workover cost and lowers LOE</li> </ul>
Increased CO <sub>2</sub> injection	~1,500 bopd	<ul> <li>Opportunity to increase CO<sub>2</sub> injection across current flood areas capturing additional untapped reserves and increasing production</li> </ul>
Waterflood Expansion	~600 bopd	<ul> <li>Deepening existing wells into deeper oil reservoir only partially under waterflood</li> <li>Each new producer expected to deliver 190,000 bbls</li> <li>19 production well deepenings ready for execution</li> </ul>
Bypassed Pay	~2,300 bopd	Recompletion or enhanced completion opportunities in areas of bypassed pay in Aneth, Ratherford and McElmo Creek areas
CO <sub>2</sub> Flood Expansion	~1,700 bopd	<ul> <li>Reduce well spacing from 80 acres to 40 acres</li> <li>Increase waterflood injection rate in northern Ratherford portion of Greater Aneth</li> <li>Build CO<sub>2</sub> facilities (compression and recycling) and initiate CO<sub>2</sub> flood</li> </ul>



# **Potential Production Uplift from Growth Opportunities**

Identified opportunities for growth are within the defined reserves of the field



Significant additional reserve and production growth expected based on other EOR analogues

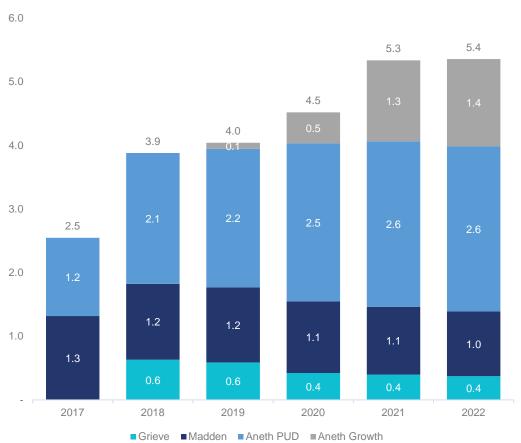






# **Aneth delivers Significant Production Growth**

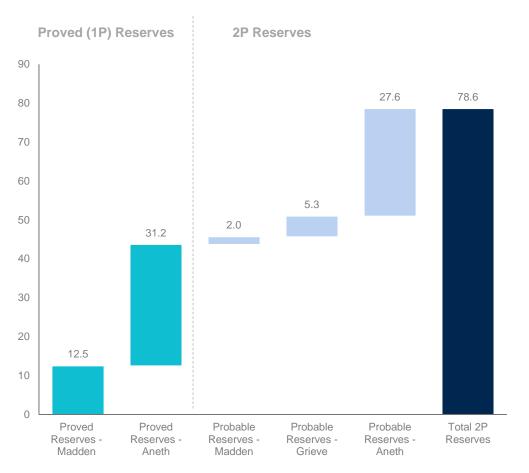
#### **Pro-forma Production by Asset (mmboe)**



- Production supported by high quality, low decline assets
- Strong base line production established of ~10,000 BOEPD in 2017
- Growth delivered through expanded Greater Aneth field development
- Production rate increases by 40% from 2017 to over 14,000 BOEPD in 2022
- Incremental production growth is entirely made up of high value liquids

# **Aneth delivers significant Reserves growth**

#### **Pro-forma Reserves by Asset (mmboe)**



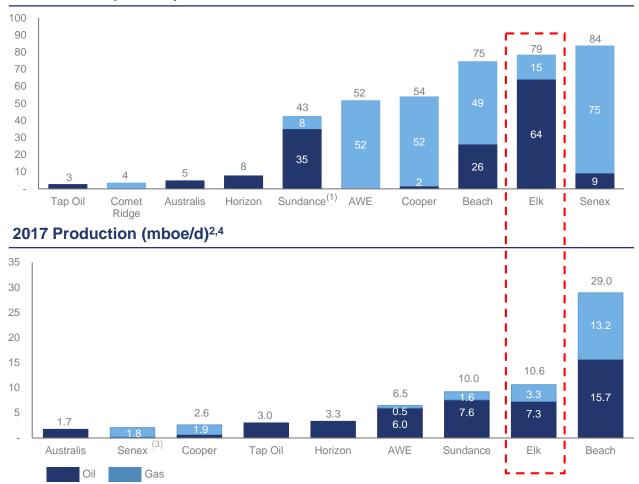
#### Aneth reserve additions are:

- All high value liquids
- At low cost per bbl
- Largely 1P Proven Developed Producing "PDP"
- 1P PDP are the lowest risk category of reserves -90% confidence level
- 1P PDP reserves require no further capital to produce
- Additional low risk, low cost 1P Proven
   Developed Non-Producing (PDNP) reserves
- Significant 2P reserve growth

# Elk becomes one of the Largest ASX E&P Mid-Caps by **Reserves and Production**

Not all reserves are created equal!

2P Reserves (mmboe) 4



- 100% of Elk's Reserves are conventional
- Elk's reserves are highly oil-weighted (82%)
- Over 50% of Elk's 2P Reserves are PDP
- Limited additional capital required to monetise and sustain production
- Elk's production weighted (69%) to long-term, low decline oil production



Proved reserves only, split of oil and gas based on latest production split

Elk production based on 2018 forecast

Senex production split assumed to reflect its 2P reserves split between oil and gas

Source: Company announcements

# **Elk Consolidated Project Free Cash Flow**

Consolidated Project Cash Flow (Net to Elk)(1,2,3)

Post Royalties, Production Taxes, Opex and Capex





<sup>1)</sup> Grieve Profile: 2P Case; includes tariff payable to Elk

(4) Based on Bloomberg Consensus Pricing as at 23 August 2017 Source: Elk Corporate Model (September 2017)

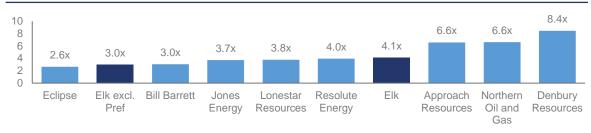
<sup>(2)</sup> Madden Profile: Based on Operator Forecasts (April 2017)

<sup>3)</sup> Aneth Profile: Elk Management Case including development projects. Excluding development capex

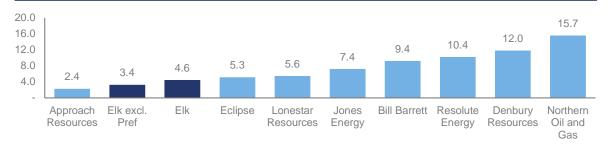
# Sustainable capital structure

- Highly predictable, long life production and cash flow allow Elk to use less dilutive debt to fund the acquisition
- Debt provided by market leading lenders who have a long history financing Resolute & the Aneth Field
- Significant hedging in place to protect downside
- Results in robust coverage metrics and strong cash flows to equity
- Ample liquidity provided through undrawn working capital facility
- Further potential upside from corporate refinancing following completion of Grieve

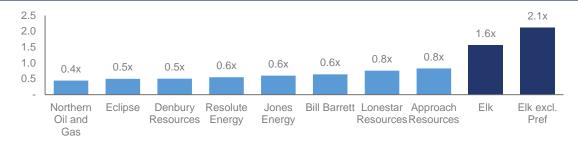
#### Debt / LTM EBITDA (x) 1,2



#### Debt / 1P Reserves (US\$ / boe)1,2



#### 1P PV<sub>10</sub> / Debt (x)<sup>1,2,3</sup>





Source: Company announcements

<sup>2)</sup> Elk corporate forecast

Elk PV<sub>10</sub> includes 2P PV<sub>10</sub> for Grieve as a 1P value is not available

# Outlook for Elk Shareholders<sup>1</sup>

		2018 <sup>(2)</sup>
Net Production (Post-Royalties)	mmboe	3.88
Net Revenue	US\$m	121.5
Operating Cash Flow (incl. G&A and W/C)	US\$m	54.4
SIB Capex	US\$m	(4.1)
Operating Cash Flow (incl. G&A and W/C), Post-Capex	US\$m	50.3
Interest Cost - Senior	US\$m	(16.6)
Dividend - Preferred Equity	US\$m	(6.6)
Amortisation (3)	US\$m	(10.0)
Cash Flow to Equity	US\$m	17.1
Cash Flow to Equity	A\$m	21.7



Elk common equity shareholders Includes impact of hedging at 80% of Aneth PDP production. Unhedged revenue based on a 2018 WTI oil price of US\$52.7/bbl Includes normalised Grieve amortisation profile from July-18 (at 10% p.a.) following completion of construction phase

# **Key Takeaways–Investing in Elk**

- Only ASX-listed oil company focussed on enhanced oil recovery
- Core projects located in the prolific Rocky Mountain CO<sub>2</sub> EOR Fairway
- Company's flagship Grieve CO<sub>2</sub> EOR Project is over 90% complete
- Madden/Lost Cabin delivers free cash flow & significant long-life, low risk, high quality reserves & production
- Elk is now a CO<sub>2</sub> supplier in its own right from Madden/Lost Cabin ownership interest
- Aneth Oil Field and CO2 EOR Project is highly accretive and delivers significant growth in reserves, production & cash flow
- Aneth acquisition transforms Elk into one of the leading CO2 EOR production operators in the Rockies

Elk Key Metrics				
2P Reserves (Net to Elk)	78.6 mmboe			
Reserve/Production Life ratio (1)	~21 years			
Operating cost (First 5 years, including all royalties and production taxes, real) (2,3)	US\$22 -24/boe			
Profit margin (First 5 years, real) <sup>(2,3,4)</sup>	US\$14.5-18.5/boe			
Total projected revenues (Project life, post royalties and production taxes) <sup>(2,4)</sup>	US\$2,800-3,450m			
First 5 years annual project free cash flow (Net to Elk)(2,3,4)	US\$80-101m p.a			



Total reserves / average 2018 forecast production (boe)

Range: Futures to Bloomberg Consensus (23 August 2017). Grieve 2P production profile; Madden PDP production profile; Aneth Management Case including development projects (excluding Aneth development capex)

<sup>(3)</sup> Includes bi-product economics and royalty credits(4) Inclusive of Grieve Oil pipeline revenue





# **Hedge protection**

	Details as of 30 Sept 2017		4Q17	2018	2019	2020
	WTI NYMEX	Volumes Hedged (Bbls/d)	-	4,200	4,000	3,800
sdı	Fixed-Price Swaps	Swap Price (\$/Bbl)	-	47.7	50.2	50.2
Swaps	Henry Hub NYMEX Fixed-Price Swaps	Volumes Hedged (MMbtu/d)	16,546 (1)	11,375	4,192	-
		Swap Price (\$/MMbtu)	2.93	2.90	2.80	-
Puts	WTINYMEX	Volumes Hedged (Bbls/d)	-	1,340	1,074	-
Pu	Fully-Paid Put Options	Put Price (\$/Bbl)	-	45.0	45.0	-
	Total Volumes Hedged (MMBOE/day)		2,853	7,502	5,797	3,800



/N/N/hhl)

#### **Reserves Tables**

#### Madden/Lost Cabin Project Reserves & Resources (Elk Net) 30th June 2017

	BCF	MMBOE
PDP (Proved Developed Producing)	67.2	11.2
1P (Proved Reserves)	75.3	12.5
2P (Proved + Probable Reserves)	87.1	14.5
3P (Proved + Probable + Possible)	99.0	16.5

	(IVIIVIDDI)		
	Gross	Net	
PDP (Proved Developed Producing)	53.5	29.1	
1P (Proved Reserves)	57.4	31.2	
2P (Proved + Probable Reserves)	93.4	58.8	
3P (Proved + Probable + Possible)	135.8	85.5	

**Aneth Reserves & Resources** 

30th June 2017

#### Grieve CO<sub>2</sub> EOR Project Reserves & Resources 30th June 2017

	(MMbbl)	
	Gross	Net
2P (Proved + Probable Reserves)	12.3	5.3
3P (Proved + Probable + Possible)	16.4	7.0
3C (Contingent Resources)	16.3	7.0

#### **Total (Arithmetic summation)** 30th June 2017

BCF Gas Only	MMBOE Oil + Gas
53.5	40.3
57.4	43.7
61.9	78.6
99.0	109.0
	Gas Only 53.5 57.4 61.9



# The Board



#### **Bradley Lingo**

#### Managing Director and Chief Executive Officer

Mr. Lingo is an experienced international resource & energy executive with a proven track record of successfully building companies in the upstream and midstream oil & gas energy sectors. Mr. Lingo held previous roles in business development, new ventures, mergers and acquisitions and corporate finance with Tenneco Energy and El Paso Corporation in the US and Australia, and Senior Vice President and Head of Oil & Gas at the Commonwealth Bank of Australia. More recently Mr. Lingo was Managing Director and CEO of Drillsearch Energy Limited, where he oversaw more than an eight-fold increase in share price and market cap over a period of six years, helping build that company into one of Australia's leading onshore oil and gas producers. Mr. Lingo's skills include leadership, ability to build market confidence, financial and technical skills, organization building, business development and funding capability, and entrepreneurship. His experience also includes equity and debt capital raising, project and transaction financing and structuring to achieve attractive financial, tax, accounting and legal treatment for complex commercial, project and financing transactions, similar to Elk's current needs

**Special responsibilities:** Member of the risk committee and remuneration committee **Other current directorships:** Oilex Limited

Former directorships (last 3 years): Drillsearch Energy Limited, Mont Dór Petroleum Limited, Ambassador Energy Limited



#### **Russell Krause**

#### Non-Executive Director

Mr. Krause has over 25 years' experience in Stockbroking and Investment Management with a primary focus on the resources sector. He has held a number of Directorships and Senior Management positions with a number of Australia's leading firms, including firms with US oil and gas assets. For the past ten years he has worked on a number of North American oil and gas projects in relation to Capital Raising and Corporate Advisory

Special responsibilities: Member of the remuneration committee and risk committee and Chair of the audit committee

Other current directorships: Carbine Tungsten Limited, Red Sky Energy Limited, Austex Oil Limited

Former directorships (last 3 years): None



#### **Neale Taylor**

#### Non-Executive Director and Chairman

Dr. Taylor has extensive technical, operating and commercial experience in oil and gas exploration and production with Esso Australia, Nexus Energy, and Cambrian Oil & Gas Plc. He is a former non-executive director of Terra Gas Trader, former non-executive chairman of Tap Oil, a former managing director of Cambrian Oil & Gas Plc and director of various subsidiaries of Xtract Energy Plc. He is a member of the Society of Petroleum Engineers and a Fellow of the Australian Institute of Company Directors

Special responsibilities: Member of the audit committee, risk committee and remuneration committee

Other current directorships: None Former directorships (last 3 years): None



#### **Timothy Hargreaves**

#### Non-Executive Director

Mr Hargreaves has over 35 years' experience in technical and managerial roles in the petroleum and minerals sectors in Asia and the Middle East for major companies including BHP, Union Texas Petroleum and Fletcher Challenge Petroleum as well as start-ups and independents. He has led successful exploration and commercialization campaigns in Pakistan and Egypt which were dependent upon technical and commercial innovation in complex regulatory environments. Since 2009 he has been Research Director of Resources for Republic Investment Management, a Singapore based investment fund that is a major investor in Elk and has been a major participant in the rejuvenation of Elk including being the lead investor in the Convertible Loan Facility of April 2015 and a sub-underwriter of the June 2016 Entitlement Offer. He is a former Director of Skyland Petroleum Limited (ASX: SKP) and The Environmental Group Limited (ASX: EGL)

Special responsibilities: Chair of the risk committee

Other current directorships: None

Former directorships (last 3 years): Skyland Petroleum Limited, The Environmental Group Limited

# The Executives

#### **Australian Team**



**Alexander Hunter** 

CFO, Sydney

Mr. Hunter has over ten years' experience in resources sector M&A and capital raising, and previously worked for ten years in construction and infrastructure project management. Alex was most recently General Manager Business Development at Drillsearch Energy where he helped to rationalize and grow the business leading various successful takeovers, divestments and capital raisings. He holds an MBA from University of Southern California Marshall School of Business, a Bachelor of Engineering, and postgraduate qualifications in corporate finance and business law



**David Evans** 

COO-Australia, Sydney

Mr. Evans is a geologist with 30 years upstream global oil & gas development, production and exploration experience, with significant exposure to Brownfield redevelopments and EOR projects. He joins EIR Petroleum from the former Drillsearch where over a 6-year period he held the positions of Chief Technical Officer and Acting Chief Operating Officer



**David Franks** 

B.Ec, CA F Fin, JP – Joint Company Secretary
Mr. Franks has 20 years in finance and accounting, initially
qualifying with PricewaterhouseCoopers (formerly Price
Waterhouse) in their Business Services and Corporate Finance
Divisions, Mr. Franks has been CFO, Company secretary and/or
Director for numerous ASX listed and unlisted public and private
companies, in a range of industries covering energy retailing,
transport, financial services, mineral exploration, technology,
automotive, software development and healthcare
Current directorships: JCurve Solutions Limited

#### **US Team**



**J Scott Hornafius** 

President, Denver

Dr. Hornafius has 32 years of exploration, technical, management and funding experience in the oil and gas industry including 16 years with Mobil in the USA, PNG and UK before founding MegaEnergy in 2000. As President of Mega Energy he developed a 1,000,000 acre position over the Marcellus shale gas play in the Appalachian Basin which was ultimately divested for over \$100 million



Brian Dolan
COO-USA, Denver

Mr. Dolan brings 26 years of diverse engineering management and operations experience in the oil and gas industry to the Elk team. Mr. Dolan has held several leadership positions while working for Shell, Amoco, and three independent E&P companies over his career. His experience ranges from shallow CSG development plays to deep complex exploration environments. Before joining Elk in January 2014, he spent the last seven years developing shale resources with horizontal drilling in four different plays

#### Companies Team Members Served















# **Competent Persons Statement**

The reserves and resources assessment follows the guidelines set forth by the Society of Petroleum Engineers – Petroleum Resource Management System (SPE-PRMS).

The Reserves and Contingent Resources in this announcement relating to the Madden Gas Field and Madden Deep Unit is based on an independent review and audit conducted by Netherland, Sewell & Associates, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Shane M. Howell and Mr. John R. Cliver, both Vice Presidents of Netherland, Sewell & Associates, Inc., an independent petroleum advisory firm. Mr. Howell is a Registered Professional Geologist in the State of Texas and Mr. Cliver is a Registered Professional Engineer in the State of Texas. Mr. Howell's qualifications include Master of Science in Geological Sciences, San Diego State University and a Bachelor of Science in Geological Sciences, San Diego State University and a Bachelor of Science in Geological Sciences, San Diego State University and a Bachelor of Science in Geological Science in Chemical Engineering from Rice University. Mr. Cliver has more than 10 years of relevant experience. Mr. Howell and Mr. Cliver meet the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules.

The Reserves and Contingent Resources in this announcement relating to the Grieve CO<sub>2</sub> EOR project, operated by Denbury Resources, is based on an independent review and audit conducted by VSO Petroleum Consultants, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Grant Olsen, a Director of VSO Petroleum Consultants, Inc., an independent petroleum advisory firm. Mr. Olsen is a Registered Professional Engineer in the State of Texas and his qualifications include a Bachelor of Science and Master of Science (both in Petroleum Engineering) from Texas A&M University. He has more than 10 years of relevant experience. Mr. Olsen is a member of the Society of Petroleum Engineers (SPE) and an Associate Member of the Society of Petroleum Evaluation Engineers. Mr. Olsen meets the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules and consents to the inclusion of this information in this report.

The Reserves and in this announcement relating to the Aneth Oil Field and CO<sub>2</sub> EOR project, operated by Resolute Energy Corporation, is based on an independent review and audit conducted by VSO Petroleum Consultants, Inc. and fairly represents the information and supporting documentation reviewed. The review and audit was carried out in accordance with the SPE Reserves Auditing Standards and the SPE-PRMS guidelines under the supervision of Mr. Grant Olsen, a Director of VSO Petroleum Consultants, Inc., ("VSO") an independent periodeum advisory firm. Mr. Olsen is a Registered Professional Engineer in the State of Texas and his qualifications include a Bachelor of Science and Master of Science (both in Petroleum Engineering) from Texas A&M University. He has more than 10 years of relevant experience. Mr. Olsen is a member of the Society of Petroleum Evaluation Engineers. Mr. Olsen meets the requirements of Qualified Petroleum Reserve and Resource Evaluator as defined in Chapter 19 of the ASX Listing Rules and consents to the inclusion of this information in this report.

The information in this ASX release or presentation that relates to Reserve and Contingent Resource estimates for the Grieve CO<sub>2</sub> EOR project, the Reserve and Contingent Resource estimates for the Madden Deep Gas Field and the Reserves for the Aneth Oil Field and CO2 EOR Project have been compiled and prepared by Mr. David Evans, COO and Mr. Brian Dolan, COO-USA and VP-Engineering of Elk Petroleum Inc. who are both qualified persons as defined under the ASX Listing Rule 5.11 and both have consented to the use of the reserves figures in the form and context in which they appear in this presentation.

Mr. Evans is a full-time employee of the company. Mr. Evans earned a Bachelor of Science with Honours in Geology from the University of London, United Kingdom, a Post Graduate Diploma, Petroleum Exploration from Oxford Brookes University, United Kingdom and a Master of Applied Science, Geology from the University of Canberra and Australian National University in Canberra, ACT. Mr. Evans has more than 30 years of relevant experience. Mr. Evans has sufficient experience that is relevant to the company's Reserves and Resources to qualify as a Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr. Evans consents to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

Mr. Dolan is a full-time employee of the company. Mr. Dolan earned a degree in Mechanical Engineering from the University of Colorado at Boulder. Mr. Dolan has more than 24 years of relevant experience. Mr. Dolan has sufficient experience that is relevant to the company's Reserves and Resources to qualify as a Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr. Dolan consents to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.





Elk Petroleum Limited Exchange House Level 1, Suite 101 10 Bridge Street Sydney NSW AUSTRALIA