Wood County Zuber Lease, Texas Project Exxon Hawkins Field Presented by Shale Energy Group, Inc.

BUSINESS Insider

For Just \$8.50 A Barrel, Exxon Made New American Oil Appear Out Of Thin Air

VINCENT FERNANDO JAN. 15, 2010, 10:13 AM

Yesterday our colleague Graham Winfrey reported that Exxon had just added 25 years of life and 40 million barrels of oil to what was thought to be a pretty dead Texas oil field.

We'd like to add an additional angle to the analysis — For this new project, Exxon plans to invest only \$340 million. This means that for just \$8.5 per barrel Exxon has discovered another 40 million barrels of



recoverable oil in a 70-year old field right within its own backyard.

More importantly, the latest project is an experiment, using some of the latest extraction technology. If it succeeds, it could be applied to other old U.S. oil fields. For just \$8.5 per barrel. It's further evidence of how technology works wonders at solving energy problems, and that with the right technology there's far more oil out there than most of us can imagine, especially in a world where \$50 oil is considered cheap.

Statesman.com: The \$340 million investment in East Texas is small for Exxon, which spent \$26 billion on capital projects last year.

However, the Hawkins plans are significant compared with the \$700 million Exxon has spent in Texas during the past three years.

Vinson & Elkins energy expert Steve Davis said the investment represents an experiment for Exxon.

If it works, the company can potentially apply the technology to other fields.

"This is \$340 million. It's nothing to these guys," he said, but added: "Their investment criteria are so stringent, that I would think there's a high likelihood of success."



Hawkins Field At a Glance

- Drilling and Production in Prolific Hawkins Field
- Nitrogen Gas Injection exponentially increases production and extends life of the field 25+ years
- Estimated 40 million barrels of oil in Woodbine Formation alone
- Virtually untapped Sub-Clarksville Formation
- Rare Opportunity for Select Partners

Details provided on following slides



Hawkins Field Oil and Gas Background

Hawkins Field. Wood County, in East Texas, is bounded on the north by Hopkins County, on the east by Upshur County, on the South by Smith County and on the West by Bains and Van Zandt Counties. Its center is 32.78639° north latitude and 95.38208° east longitude, ninety-five miles east of Dallas. It comprises 626 square miles. **The Hawkins Field produces primarily from the Woodbine formation that is composed of many faulted sands**.

The Hawkins Field was discovered in 1940 and has been named as **one of the largest oil fields ever discovered in Texas.** ExxonMobil has been producing oil and natural gas at the Hawkins Field for nearly 70 years. Exxon unitized the field in 1975 for secondary recovery. The field has produced nearly 1,000,000,000 barrels of oil and an estimated 1,000,000,000 cubic feet of gas from about 365 wells with an average of 2,465,000 barrels of oil individually and more than 2 billion cubic feet of gas per well.

In late 2011 Exxon undertook a massive \$340 million construction project to build a nitrogen gas injection plant on the field. The building phase of this gas injection plant continues today. There are 12-17 gas injection wells located strategically on the heavily faulted field. These wells have substantially increased the oil and gas production in the field. **It's predicted that the gas injection wells will produce about 40 million barrels of oil equivalent, extending the life of the field for an additional 25 years.**

The 20 acre Zuber Prospect within the Hawkins Field offers the partners an opportunity to reap the benefits of the nitrogen gas injection in a new well to be drilled by Shale in the immediate future.











Wood County Geological Discussion

- The Hawkins Field produces from the Woodbine formation that is composed of many faulted sands. The reservoir sands are highly permeable, contain a gas cap, water drive and an asphalt layer.
- While the Hawkins Field's primary production is from the Woodbine formation, the Sub-Clarksville is also present. The Sub-Clarksville should benefit from the nitrogen gas injection and has been commercially productive in the field and on the Zuber lease. Additionally, the Sub-Clarksville produces very little or no water.
- Geologically the sands and chalk fractures are being charged by the nitrogen gas flood of the Hawkins Field by Exxon through a system of fault structures running northeast/southwest through the leases. This process of injecting nitrogen pushes the oil from the gas cap downward and outward and thereby causes lower structure wells to become the producers of the swept oil.
- Shale Energy's Zuber #1 well will be drilled to 5000', setting 7" casing and dual completing in the Woodbine and Sub-Clarksville with (16) 300'-400' horizontal laterals. Probable production could see IPF rates of 500-1,000 BOPD with 2-4 million cubic feet of gas per day. The reserves in the Zuber #1 are as follows: 48 feet of Sub-Clarksvlle has an estimated 2,304,000 barrels of oil in place and 18 feet of Woodbine has 864,000 barrels of oil in place for a total 3,168,000 BOIP/40AC. Total recoverable reserves are estimated at 2,000,000 barrels of oil. Shale Energy Int'I, LLC/SEI will be the only operator within the Hawkins Field other than ExxonMobil's XTO Energy, Inc.
- In 1975, when the field was unitized, this lease was held by production and did not become a part of the unit even though the surrounding acreage, as seen in the lease plat, was unitized.

Hawkins Field - Completion Cards (Exhibit A)

Emmon 0109 Howkins Fid Unit Wood County Fast Texas Hawkins fid DO	Wood County East Texas New Pay Deep Test Hawkins Field
Wood EXXON Control Oll Oll Well EXXON 0109 Hawkins Field Unit (05743) (API 42-499-30267) Result Oll Locn 5733N 281-2, 22 and NW (Hawkins 10, 518, 5 and 56, 5	Well: Humble OER Co. #1 Hawkins Gas Unit Loc'n: James Poliack Sur, A-449, 2 mi N/Hawkins, 1985' FSL, 1944' FEL of Sur, 500' FSL, 750' FEL of 140, 91 ac tr.
Sur A 449, 1050 ¹ FSL, 2400 ¹ FEL of sur, 2000 ¹ N of #0209 well Spud: 12-29-75; Comp: 1-19-76; Elev: 410 ¹ TS Grd; TD: 4580 ¹ . C/ Gibson Drig Co Casing: 14" 45', 8 5/8" 1637 ¹ / 400 sz, 51" 4887 ¹ / 500 sz Prod Zone: (WB) prod thru perf 4564 78" [PF-1329 BOPD s 624 MCF GPD & 2 BW, GOR 470 1, 1/64" che. gr 28.7 dieg) Comp Info: Drid to TD 4900 ¹ (WB), ran HS, perfid 4564 78°, istd Tops: [Efec Log] Nac 2266 ¹ , HG 3042 ¹ , Taylor 3220-3600 ¹ , AC 4040 ¹ , Ector 4172 ¹ , El 4242 ¹ , WB 4338 ¹ Petroleum Informatione Compound Compound Comp Info: Drift Informatione Comp Info: Drift Drift Comp Info: Drift Drift Comp Info: Drift Drift Comp Info: Drift Drift Zord No Zi E. Text.	Spud: 11-20-62 Comp: 5-24-63 Elev: 385' DF TD: 12,050' Casing: 20" 72', 13 3/8" 1518', 9 5/8" C7Parker Drig. Co. PBTD: 8400' 3965', 7" 8387' Prod Zone: (Rod) Prod thru perf 7370-82' PPCOFJ: 9,000,000 CFCPD, 29 BCP million, Grav 58.8 deg Comp Info: Drid to 1550', ran IEL to 1559', set 13 3/8" csg, Drid to 5003', ran IEL to 5004', Crd 5645-70', rec 24' silty sd, sh strks, scat oil show, Crd 5670-86', rec 16', 10' sd, scat o 6 stn, 5' sh, 1' tite sd, sil oil odor 6 stn, Crd 5686-5716', rec 30' gry, tite, shiy sd, few bu stn, Crd 5716-49', rec 28', 4' silty sd 6 sh, scat sil oil show, 7' sh, 7½' shiy sd, scat oil sho sh, 2½' silty shiy sd, scat oil stn, sil odor, Crd 5749-77', rec 28', 2' por, f-gr, sd, oil staln 2' shiy f-gr sd, spot stn, 1½' sil por, f-gr sd, oil stn, 2' tite, f-gr sd, oil show., 6' sli por, f sd, oil stn, 1' non-por, silty sh, NS, 7' sil por, silty, f-gr sd, uneven stn, 6' sh, ½' non-por spot stn, Drid to 5748', ran IEL to 5749', DST 5742-87', 1" T G ½" B Chs, rec 150' sil GCM 150' mud cut w/wtr, 25' mdy filt wtr, BHPF 105-208#, BHPSI 2288#/1 hr, 11P 2995#, Crd 587-5839', rec 52', 1' sh, 1' non-por sd, spot oil stn, 2' non-por silty sd, vug, f-gr, oil sa 5' tite, f-gr sd, spot stn, 1' sh, 7' tite, sity, f-gr sd, spot stn, 1½' sh, 7' tite, shiy, f-gr spot oil stn, 6' sli por, f-gr sd, uneven oil stn, 3' gry silty, f-gr sd, uneven stn, Crd 5839-74', rec 34', 2' silt por, tan f-gr sd, uneven oil stn, 8' tite slity shiy, f-gr sd, uneven oil stn, 2' sli por, silty, f-gr sd, uneven oil stn, 5' same, oil stn, 6' bik silty, f-gr sd, uneven spot oil stn, 2' slity, shiy, f-gr sd, uneven oil stn, 1' sh, 8' silty f-gr sd, uneven stn, Cont'd Date: 6-18-63 Card No.: 51 E. T.
	Wood County East Texas Humble #8 Hargett Hawkins Field
Wood County East Texas Hawkins Field DO Yell: EXXON CORP 3034 Hawkins Fld Unit API 42-499-31360 Result: OIL	Well: HUMBLE OIL 6 REFINING CO. #8 Beulah Hargett Result OIL Loc'n: 1448 ¹ FNL, 2838 ¹ FWL of George E. Brewer Sur A=41, ½ mi NW/Hawkins, DO. OIL 474 ¹ W of #1 Hargett DO.
S/21N-39E-1, 1 mi NW/Hawkins, 10,590.7 ac unit, N.A. Esparcia Sur, A-183, 100 FWL, 325 FNL of 24 ac tr, 525 FS'ly NL, 1250 FE'ly EL of sur	
Spud: 6/1/85, Comp: 7/3/85, EL: 443 GR, 462 DF, TD: 4853, Contr: Reflant Drlg #16 Casing: 8 5/8 @ 1608 w/745, 5 # @ 4844 w/795 Prod Zone: (Woodbine) prod thru perfs 4660-4666 TPGL: 324 BOPD, 155 MCFCPD, 16 BWPD, 20/64 ck, FTP 430#, CP 630#, GOR 478:1, gty 22.6 deg Comp Info: DTD 4853 (Woodbine), ran GRNL/CCL 4000-4853, set csg, Rel Rig 6/9/85; perf 4660-66 w/4 spf, GL/303 BOPD, 27 BWPD, 2 7/8 tbg @ 4550 Tops: (Elec Log) Austin 4026, Ector 4139, Eagl@ford 4205. Woodbine 4330 Note: Amended Location fr S/21N-39E-1, 1 mi NW/Hawkins, 10,590.7 ac unit, M.A. Esparcia Sur, A-193, 100 FWL, 525 FNL of 24 ac tr, 525 FS'ly NL, 1250 FE'ly EL of sur	 Snud: 12-18-70; Comp: 1-16-71; Elev: 403 DF; DD 4730³, C/ W.B. Hinton Drlg. Co. Casing: 8 5/8" 1662³, 4³/₂" 4730⁴ Prod Zone: (WB) prod-tiluty perfs 4634-45⁴, Brod Zone: (WB) prod-tiluty perfs 4634-45⁴, gr 28.3 deg Comp Info: Drld to TD 4730⁴ ran IEL 4697⁴, set csg, perf 4634-39⁴, 6 4639-45⁴, (WB), FARO 250 BOHD, G 5 BWHD, on 22/64⁴ ch, FTP 260⁴/₂ Comp Info: Elec Log) Nac 2225⁴, PC 2941⁴, AC 3991-4102⁴, Sub- Clarks 4120⁴ WB 4360⁴, File No E 2140 A East Texas Well Log Service. API # 42-499-30068 Reissued for EL/T
	Pr) Petroleum Informatione
Petroleum Information. 9/6/85 89 E. Tex.	COMPONNION 4 Salmaharr of 45' Rotum Company Date: 2-12-71 Card No.: 14 E. T.

Hawkins Geological Report Zuber Prospect - Wood County, Texas EXXON/MOBIL/ HAWKINS FIELD <u>PROSPECT</u>

EXHIBIT 'B'

Section	Porosity	S/W	Ft. Pay	B.O.I.P. (40 Ac.)	Value
Woodbine A&B	25-30%	40%	18	864,000	
Sub-Clarksville	21-25%	32-40%	48	2,304,000	
Total B.O.I.P. (40 Ac.)				3,168,000	
Rec. Oil (30% Factor)	(\$40/b/oil)			950,400	\$ 38,016,000
Gas Recovery (2 B.C.F.)					\$ 6,750,000
Total Estimated Value					\$ 44,766,000

Shale Energy Group, Inc.

ESTIMATED CASH FLOW PROJECTIONS & RESERVE VALUE

Unit Price \$215,000 (10% WI & 7.5% NRI)

1. Low Range Projection	100 BOPD	500 MCF/D
Oil Price \$45 BO/Gas Price \$3 MCF \$13,500 Month per Unit 16 Month Cash on Cash Payout	\$10,125 Oil Sales	\$ 3,375 Gas Sales
Oil Price \$25 BO/Gas Price \$2 MCF \$7,875 Month per Unit 27.30 Month Cash on Cash Payout	\$ 5,625 Oil Sales	\$ 2,250 Gas Sales
2. Mid-Range Projection	200 BOPD	1000 MCF/D
Oil Price \$45 BO/Gas Price \$3 MCF \$27,000 Month per Unit 7.96 Month Cash on Cash Payout	\$20,250 Oil Sales	\$ 6,750 Gas Sales
Oil Price \$25 BO/Gas Price \$2 MCF \$15,750 Month Per Unit 13.65 Month Cash on Cash Payout	\$11,250 Oil Sales	\$ 4,500 Gas Sales
3. High Range Projection	400 BOPD	2000 MCF/D
Oil Price \$45 BO/Gas Price \$3 MCF \$54,000 Month per Unit 3.98 Month Cash on Cash Payout	\$40,500 Oil Sales	\$13,500 Gas Sales
Oil Price \$25 BO/Gas Price \$2 MCF \$31,500 Month per Unit 6.82 Month Cash on Cash Payout	\$22,500 Oil Sales	\$ 9,000 Gas Sales

THE PRECEDING PROJECTIONS WERE PREPARED USING INFORMATION DEEMED TO BE RELIABLE AS OF THE ISSUE DATE AND ARE INTENDED ONLY AS A PROJECTION OF WHAT INCOME MAY BE EXPECTED FROM THE JOINT VENTURE UNDER CERTAIN ASSUMED FAVORABLE CONDITIONS. THERE IS NO ASSURANCE, EXPRESSED OR IMPLIED, THAT ANY OF THE ECONOMIC PROJECTIONS WILL BE REALIZED OR THAT ANY OF THE ASSUMPTIONS SET FORTH ABOVE WILL BE ACHIEVED BY THE JOINT VENTURE. ACTUAL RESULTS MAY DIFFER MATERIALLY FROM PROJECTED RESULTS. THE ECONOMIC FORECASTS SHOULD NOT BE RELIED UPON FOR ANY PURPOSE OTHER THAN AS AN ILLUSTRATION OF THE INCOME THAT CAN BE REALIZED UNDER CERTAIN ASSUMED CONDITIONS WHICH IN FACT MAY NOT OCCUR.

Summary of Results of Cash Flow Analysis (Woodbine & Sub-Clarkesville Intervals)

Project: G.Zuber - Hawkins Field - 5000' well (Woodbine & Sub-Clarkesville)

	Payout (months)			10-yr average ROR			10-yr IRR					
-	Scen. 2	Scen. 3	Scen. 4	Altern. Inv.	Scen. 2	Scen. 3	Scen. 4	Altern. Inv.	Scen. 2	Scen. 3	Scen. 4	Altern. Inv.
Cash flow, BIT	9	4	3	N/A	105.0%	221.0%	395.0%	8.0%	122.3%	256.2%	459.1%	8.0%
Cash flow, before reinvest, AIT	9	5	3	N/A	76.9%	161.0%	287.2%	6.7%	102.5%	201.3%	347.1%	7.0%
Cash flow, with reinvest., AIT	9	5	3	N/A	89.3%	188.8%	338.1%	9.5%	105.4%	205.0%	351.3%	9.5%

Note: A risk-adjusted value for Payout, Average Rate-of-Return, and Internal Rate of Return cannot be calculated because it is not possible to calculate a value for these performance measures for the dryhole scenario.

					Adjusted for	
cen. 1	Scen. 2	Scen. 3	Scen. 4	Adjusted for Geologic Risk (composite of Scen. 1, 2, 3, 4)	Geologic and Business Risk (composite of Scen. 1, 2, 3, 4)	Alternative Investment
,200,000	\$14,825,035	\$31,581,345	\$56,715,809	\$29,978,841	\$29,978,841	\$579,776
780,000	\$10,811,160	\$22,908,441	\$41,054,363	\$21,749,325	\$21,749,325	\$420,114
780,000	\$12,502,452	\$26,740,258	\$48,096,967	\$25,412,013	\$25,412,013	\$792,766
7	200,000 80,000 80,000	200,000 \$14,825,035 80,000 \$10,811,180 80,000 \$12,502,452	200,000 \$14,825,035 \$31,581,345 80,000 \$10,811,160 \$22,908,441 80,000 \$12,502,452 \$26,740,258	200,000 \$14,825,035 \$31,581,345 \$56,715,809 80,000 \$10,811,160 \$22,908,441 \$41,054,363 80,000 \$12,502,452 \$26,740,258 \$48,096,967	Composite of Scen. 1, 2, 3, 4) 200,000 \$14,825,035 \$31,581,345 \$56,715,809 \$29,978,841 80,000 \$10,811,160 \$22,908,441 \$41,054,363 \$21,749,325 80,000 \$12,502,452 \$26,740,258 \$48,096,967 \$25,412,013	(composite of Scen. 1, 2, 3, 4) (composite of Scen. 1, 2, 3, 4) 200,000 \$14,825,035 \$31,581,345 \$56,715,809 \$29,978,841 \$29,978,841 80,000 \$10,811,160 \$22,908,441 \$41,054,363 \$21,749,325 \$21,749,325 80,000 \$12,502,452 \$26,740,258 \$48,096,967 \$25,412,013 \$25,412,013

Conclusion of cash flow analysis (based on all scenarios):	
Investment amount for workovers:	\$1,800,000
Amount of investment that is at risk (investor's net after-tax loss for a dryhole):	\$780,000
Chance a dryhole will occur:	10%
10-year NPV for the well adjusted for geologic and business risk, with reinvestment, AIT:	\$25,412,013
10-year NPV for the alternative investment (with 0 risk assumed), with reinvestment, AIT:	\$792,766



Data provided by Donald Goddard, PhD, Petroleum Geologist





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Data provided by Donald Goddard, PhD, Petroleum Geologist











Gas Injection Methods

Gas injection methods will allow additional recovery of oil and natural gas in the Hawkins Field in northeast Texas. It is predicted the project will produce about 40 million barrels of oil equivalent, extending the life of the field, discovered by ExxonMobil in 1940, for an additional 25 years.

Gas injection is presently the most-commonly used approach to enhanced oil recovery (EOR). A gas is injected

into the oil-bearing stratum under high pressure. That pressure pushes the oil into the pipe and up to the surface. In addition to the beneficial effect of the pressure, this method sometimes aids recovery by reducing the viscosity of the crude oil as the gas mixes with it. Gases commonly used include CO2, natural gas or nitrogen. Oil displacement by carbon dioxide injection relies on the phase behavior of the mixtures of that gas and the crude, which are strongly dependent on reservoir temperature, pressure and crude oil composition. In these applications, more than half and up to two-thirds of the injected CO2 returns with the produced oil and is usually re-injected into the reservoir to minimize operating costs. The remainder is trapped in the oil reservoir by various means.



Using EOR, 30-60 %, or more, of the reservoir's original oil can be extracted compared with 20-40% using primary and secondary recovery.

Radial Jet Enhancement Technology

The figure (right) demonstrates how Radial Jet Enhancement can drastically expand the production area within a given field. An average well will pull petroleum from an area of up to 120 feet from the well bore. However, each Radial Jet Enhancement extends up to 300 feet from the well bore, thus increasing the area of production several fold. Traditional well bore configuration, pulling from 120 feet, equates to a total volume of pay zone of 271,296 cubic feet. Each lateral of 300 feet will pull from over 360,000 cubic feet. That's 1,440,000 cubic feet on four laterals.



Radial Jet Enhancement Technology

Benefits of Radial Jet Enhancement

- Increases production rate and recoverable reserves from marginal wells
- Improves injection rates in water disposal/injection wells
- Allows directional treatment of wells e.g. acid, steam, CO2, etc.
- Allows multi-layer application in thicker reservoir zones
- Most effective on old, low productivity wells
- No need for large, expensive rotary rigs
- No mud pits that can damage the environment
- No casing milling equipment necessary
- No additional stimulation required
- Average operation duration is two days per well. Thus limiting the time the well is out of production
- No logging expense required
- No need to change well-bore configuration



The figure above more precisely illustrates the process of how the Radial Jet Enhancement process works on both new and existing wells. Radial Jet Enhancement performs best on formations of low permeability such as depleted wells that are ready to be capped because they are no longer economically viable. This negates the continual need for new explorations and drilling. Fields that are ready to be deserted and have about 80% of the reserves still in ground can be maximized to pull another large portion of the in ground reserve.





Data provided by Donald Goddard, PhD, Petroleum Geologist

Hawkins Prospect Authorization for Expenditure (AFE)

INTANGIBLE DRILLING AND COMPLETION			
LOCATION EXPENSES	DHC	COMP COST	TOTAL COST
Survey & Stake	\$7,500.00	\$0.00	\$7,500.00
Location and Roads (Board Road and Pad)	50,000.00	25,000.00	75,000.00
Surface Damage and Legal	50,000.00	0.00	50,000.00
DRILLING CONTRACT			
Turnkey	200,000.00	0.00	200,000.00
Day work 2 @ 20,000/day (incl. fuel)	40,000.00	0.00	40,000.00
Mobilization	25,000.00	0.00	25,000.00
COMPLETION OR WORKOVER			
Day Work	0.00	50,000.00	50,000.00
PLUG AND ABANDON	0.00	0.00	0.00
SERVICES AND SUPPLIES			
Cement and Services	35,000.00	0.00	35,000.00
Electrical logging ng AIT CNL CDL GR Caliper Gyro	16,000.00	0.00	16,000.00
Well Testing	7,500.00	0.00	7,500.00
Side Wall Cores SWC	17,000.00	0.00	17,000.00
Cased hole logging	0.00	10,000.00	10,000.00
E-Line	0.00	0.00	0.00
Directional	225,000.00	0.00	225,000.00
Drilling mud and chemicals	35,000.00	0.00	35,000.00
Bits	15,000.00	0.00	15,000.00
Rental equipment and tools Rental BOP Rental Drill Pipe Frac Tanks Tools	15,000.00	7,500.00	22,500.00
Fuel, power & water wait	5,000.00	0.00	5,000.00
Trailers, P-V-T, etc.	0.00	0.00	0.00
Trucking and hauling	15,000.00	15,000.00	30,000.00
Engineering and supervision	25,000.00	5,000.00	30,000.00
Contract labor	5,000.00	5,000.00	10,000.00
Stimulation	40,000.00	0.00	40,000.00
Other services and insurance	20,000.00	15,000.00	35,000.00
OVERHEAD	0.00	0.00	0.00
CONTINGENCIES	127,200.00	19,875.00	147,075.00
TOTAL INTANGIBLES	\$975,200.00	\$152,375.00	\$1,127,575.00

TOTAL INTANGIBLES	\$975,200.00	\$152,375.00	\$1,127,575.00
TANGIBLE DRILLING AND COMPLETION			
TUBULAR MATERIALS & DOWN HOLE EQUIPMENT			
Bradenhead casinghead	\$2,500.00	\$30,000.00	\$32,500.00
Workover Rig (10 days)	52,000.00	0.00	52,000.00
Surface casing 9 5/8" 1,200'	24,000.00	0.00	24,000.00
Intermediate casing 7 5/8 33.70-5000'	85,000.00	0.00	85,000.00
Gas Line & Meter run 2,500 ft.	30,000.00	0.00	30,000.00
Cement casing	25,000.00	0.00	25,000.00
Tubing 2 3/8 6.50# L-80 EUE 9,600 ft.	0.00	38,400.00	38,400.00
Downhole nipples, cross-overs, Linear hanger, etc. Whipstock	20,000.00	0.00	20,000.00
Packers (Dual)	0.00	12,000.00	12,000.00
Christmas tree (Dual)	0.00	20,000.00	20,000.00
SURFACE EQUIPMENT			
Separator, heater treater, dehydrator, line heater, gas stripping uni	t 0.00	67,000.00	67,000.00
Tank battery	0.00	30,000.00	30,000.00
Pipe and fittings	0.00	7,500.00	7,500.00
Installation labor	0.00	7,500.00	7,500.00
Pumping Unit (Dual)		40,000.00	40,000.00
Pump & Rods		14,000.00	14,000.00
11 Miscellaneous		50,000.00	50,000.00
CONTINGENCIES	35,775.00	47,460.00	83,235.00
TOTAL TANGIBLES	\$274,275.00	\$363,860.00	\$638,135.00
TOTAL Drig estimated cost	\$1,249,475.00	\$516,235.00	\$1,765,710.00
Leases	125,000.00	0.00	125,000.00
Grand Total	\$1,374,475.00	\$516,235.00	\$1,890,710.00
Primary Objective: Woodbine and Sub-Clarksville (du	al completion)	Total Depth: 5.	000'
Shale Energy International, LLC 1070B W. Causewa	y Approach Mandeville, LA 7	0471 985-246-3	026

Hawkins Field Core Analysis

CORE LABORATORIES, INC. Petroleum Reservoir Engineering

DALLAS, TEXAS

PYRON INVESTMENTS	DATE:	26 JUN 77	FILE NO:	2204-5031-3
NO. 1 P. GOODWIN ZUBER	FORMATION:	AS NOTED	ANALYSTS:	LB/BD/DF
HAWKINS FIELD	DRLG. FLUID:	WATER BASE MUD	LABORATORY:	TYLER
WOOD COUNTY, TEXAS			CORES:	WELEX

SIDE WALL CORE ANALYSIS

REC	DEPTH	PERM	POR	OIL %	WTR %	PROB	OIL %	GAS %	GAS	DESCRIPTION
Ш	FEET	MD (*)	%	PORE	PORE	PROD	BULK	BULK	DET	
1.4	2370.0	2.3	21.1	0.0	87.7	(6)	0.0	2.6	0	SD VFG VSHY VSLTY CALC NO FLU
1.4	2377.0	3.5	23.1	0.0	87.7	(6)	0.0	2.9	0	SD VFG VSHY VSLTY CALC NO FLU
1.0	2381.0	2.7	19.4	0.0	86.3	(6)	0.0	2.7	0	SD VFG VSLTY SSLTY CALC NO FLU
1.3	3372.0	0.2	13.0	0.0	83.8	(6)	0.0	2.1	0	SD VFG VSLTY SSHY FT FLU
1.0	3373.0	0.1	11.9	0.0	90.1	(6)	0.0	1.2	0	LS XLN VSHY SSLTY NO FLU
1.1	3391.0	0.2	12.4	0.0	81.8	(6)	0.0	2.2	0	LS XLN VSHY SSLTY NO FLU
1.0	3700.0	0.1	9.5	0.0	87.9	(6)	0.0	1.2	0	LS XLN VSHY NO FLU
1.2	3759.0	0.1	12.2	0.0	81.7	(6)	0.0	2.2	0	LS XLN VSHY NO FLU
1.0	3769.0	0.2	14.1	0.0	80.6	(6)	0.0	2.1	0	LS XLN VSHY FT FLU
0	3777.0	0.2	11.1	0.0	78.0	(6)	0.0	2.4	0	LS XLN VSHY SSLTY NO FLU
0.8	3780.0	0.1	10.3	0.0	71.7	(6)	0.0	2.9	0	LS XLN VSHY SSLTY NO FLU
0.8	3786.0	0.1	12.5	0.0	75.8	(6)	0.0	3.0	0	LS XLN VSHY NO FLU
1.0	4571.0	18	21.6	9.3	66.1	OIL	2.0	5.3	200	SD VFG SSLTY FT FLU
0.6	4575.0					(3)			200	SD VFG SSLTY CALC FT FLU
1.0	4576.0	20	21.9	10.0	66.6	OIL	0.0	7.3	150	SD VFG VSLTY FT FLU
1.1	4634.0	45	26.0	20.0	44.7	OIL	5.2	9.2	100	SD VFG VSLTY SSHY FT FLU
1.0	4635.0	45	24.2	10.6	48.1	OIL	2.6	10.0	20	SD VFG VSLTY VSHY FT FLU
1.0	4811.0	25	23.2	10.2	63.2	OIL	2.8	6.3	90	SD VFG VSLTY SSHY FT FLU
1.5	4813.0	26	23.3	13.6	61.9	OIL	3.2	5.7	2	SD VFG VSLTY SSHY GD FLU
1.0	4816.0	16	23.3	12.2	62.8	OIL	2.8	5.8	30	SD VFG SSLTY SSHY (LAM) GD FLU
1.0	4817.0	15	23.0	13.9	65.2	OIL	3.2	4.8	65	SD VFG SSLTY SSHY GD FLU
1.0	4818.0	33	23.8	10.8	63.7	OIL	2.6	6.1	50	SD VFG SSLTY SSHY GD FLU
1.0	4866.0	7.0	23.0	0.0	88.9	(6)	0.0	2.6	0	SD VFG VSLTY VSHY FT FLU

(3) INSUFFICIENT SAMPLE

(6) LOW PERMEABILITY

Hawkins Inert Gas Plant: Design and Early Operation – OnePetro

Authors	Harold
100	http://dx
Document ID	SPE-67
Publisher	Society
Source	SPE An
Publication Date	1977

Harold G. Kuehm (Exxon Company, U.S.A.) http://dx.doi.org/10.2118/6793-MS SPE-6793-MS Society of Petroleum Engineers SPE Annual Fall Technical Conference and Exhibition, 9-12 October, Denver, Colorado 1977 Show more detail

Abstract

The Hawkins Inert Gas Plant, largest of its type in the industry, is located approximately 20 miles north of Tyler, Texas. This paper describes the design features of a pressure maintenance compressor plant intended to inject an average daily volume of 120 MMscf/D of boiler flue gas into the Hawkins Woodbine Reservoir, the equipment included to convert the potentially corrosive elements in the exhaust gas into safe components, the more significant design problems that developed during design and start tip, construction details of the new plant, and the early operating history of this unique installation.

Introduction

On January 1, 1975 the Hawkins Field, located about 20 miles north of Tyler, Texas, was unitized with approval of the Texas Railroad Commission. Unitization represented the culmination of many years of effort by both Exxon and the other Unit owners. This date also signaled the formal beginning of the design, and later construction and operation, of the Hawkins Inert Gas Plant.

Extensive reservoir studies prior to Field unitization indicated a need to use gas drive rather than the natural water drive to maximize Field recovery, and to minimize and then prevent residual oil loss as a result of oil movement into the gas cap, because of the gradual decline in the gas cap pressure. Because sufficient natural gas traditionally used in the industry was not available either in the Hawkins Field or elsewhere on an economical basis, a plan was devised and approved to use steam boiler exhaust gas for pressure maintenance injection needs. Steam produced in the inert gas generators would be used to drive the steam turbines that in turn drive the compressors used to compress the boiler exhaust gas.

https://www.onepetro.org/conference-paper/SPE-6793-MS

Hawkins Inert Gas Plant: Design and Early Operation – OnePetro (cont'd)

This paper describes the design features of a pressure maintenance plant intended to inject an average daily volume of 120 MMscf/D of boiler exhaust gas into the reservoir, the equipment included to convert the potentially corrosive elements in boiler exhaust gas into inert safe components, the more significant problems that developed during design and startup, construction details of the new plant, and the early operating history of this unique new installation. It will not address any aspect of Field unitization or additional reservoir oil recovery that will be achieved as a result of operating this new inert gas plant. Further, no attempt will be made to compare the design and results to comparable processes. DESIGN

The inert plant is made up of three identical trains operating in parallel. Figure 1 shows schematically the major items for one train. Following the flow from left to right, each train has two inert gas generators (steam boilers), two catalytic reactors, a direct contact cooler, a 20,000 BHP compressor train driven by a steam turbine, and an inert gas dry bed dehydration unit. There are five stages of compression in 22 wheels and 3 cases that compress the inert gas from 0 psig to 1800 psig. Each train is designed to produce 44 MMscf/D of inert gas for a total design capacity of 132 MMscf/D. Considering normal downtime for preventive maintenance, annual average injection preventive maintenance, annual average injection rates were targeted for 120 MMscf/D from the Plant. Plant. Corrosion is the single most important operating disadvantage of using; boilers and/or engine exhaust gases for oil field pressure maintenance service.

https://www.onepetro.org/conference-paper/SPE-6793-MS

L.P. Brown, III Chief Executive Officer

Shale Energy International, LLC's operations are guided by LP Brown, III. Mr. Brown has worked with major oil companies such as Exxon, Chevron, Amoco and smaller independents such as Ross Perot Jr.'s Hillwood Energy, Denbury Resources and others. Mr. Brown has owned or co-owned independent oil companies with holdings in numerous, successful producing wells and extensive lease blocks. In 2006, he purchased a drilling rig and completed a successful, multi-well drilling program. In 2007, T&F Oil Company, Shale's sister company, of which Mr. Brown was CEO, was ranked as the 15th largest oil producer in the Monroe District of Louisiana.

Third generation in the oil business, Mr. Brown's career began in 1976 as a roughneck on drilling rigs during the summers while attending high school and college. He later worked as a landman, acquiring leases and running title for his own prospects. Thereafter, he rose through the ranks to become an independent oil producer and operator.

Mr. Brown's background includes extensive experience in structuring oil and gas programs and petroleum financial management. As a knowledgeable veteran of the petroleum industry, he has been instrumental in several field discoveries, resulting in the acquisition of tens of thousands of acres of mineral leases with numerous producing wells.

Mr. Brown's involvement with each prospect begins with the acquisition and development of the lease. He works closely with the landman, geologist(s), geophysicist(s), engineer(s), sales agent(s), banks and bond companies to complete a project. He creates budgets, negotiates contracts with geologist(s), drilling contractors and other key personnel.

Once oil/gas production is established, Mr. Brown's involvement continues through the entire productive life of the well or field. Hi s involvement further extends throughout the production process, ending with the delivery of the oil/gas to the refiner/purchaser, resulting in the payment of monthly production checks to the co-owner/investors.

Mr. Brown is currently focusing on the acquisition of production, viable development and exploratory prospects both onshore and in the Gulf of Mexico. His acquisitions and sales in recent years have netted generous returns to the co-owners/investors.

Affiliations/Accommoations

CIPA-California Independent Producer's Association. LOGA-Louisiana	Commissioned Honorary Citizen of Texas by Governor William "Bill"
Oil and Gas Association.	Clements.
AAPL- American Association of Professional Landmen.	Honored by former United States Chamber of Commerce President Richard L.
Honorary Mayor-President of the Capitol City of Baton Rouge,	Lesher as a
Louisiana three years.	Leader of Excellence.
Louisions by Couperage Buddy Decemen and	Best Friends of America. Contributor and provider, featuring 1st Lady Laura
Bobby Jindal	Bush.
Bobby Jindai.	Pacific Mariners Yacht Club (PMYC) Marina Del Rey, CA regular member.

L.P. Brown, III Chief Executive Officer cont'd

Oil and Gas Wells & Fields

- *Jack County, Texas*: Marley 83-5, Marley 84-5, Marley 85-5, Marley 85-5A, Marley 85-5B
- Callahan County, Texas: Park Anderson #1
- Coleman County, Texas: McCord 84-6, Sealy 84-5
- Red River Parish, Louisiana: Glen Jones #1
- *Catahoula Parish, Louisiana*: Trunzler #1, Trunzler SWDW; Tensas Delta #1; FD Brown #1
- *Concordia Parish, Louisiana*: Quinn #1, Quinn #2, and Quinn #3; Campbell 7-1, Campbell 7-2, Campbell 7A-3, Campbell 7-4 Campbell SWDW; Lawrence #1, Lawrence #2; Angelina CB #1, Angelina CB #2, Angelina CB SWDW; Angelina MCB #1, Angelina A-3, Angelina No. 1 and Angelina SWDW; Coochie Field (6 wells) Coochie SWDW; Coochie No. 17, Coochie No. 18
- *Concordia Parish, Louisiana:* Exxon 50% partner, Min SU 30 Conn, Min SU 33 Conn, Conn #1 SWDW
- Tensas and Concordia Parish, Louisiana: Lake St. John Field (16 wells)
- Adams County, Mississippi: Armstrong #1, Armstrong SWDW
- Wilkinson County, Mississippi: Whitaker #1, Whitaker SWDW; Parker #1
- *St. Helena Parish, Louisiana*: Liverpool Field Lucy Lee #1, Mina Travis #1, Liverpool SWDW
- Assumption Parish, Louisiana: Blanchard #1
- Cameron Parish, Louisiana: Nunez #1, Mermentau #1, Mermentau #2
- Miller County, Arkansas: Bassett #1, Genoa Field
- LaSalle Parish, Louisiana: Weyerhauser # 9-11
- *LaSalle and Grant Parish, Louisiana*: The 27,000 acres Weyerhauser lease (well drilled every 90 days from 2009 2014).
- *Concordia Parish, Louisiana*: The 9,615 acre Blackhawk Plantation farm-out resulting in 9 successful Frio wells offsetting the Coochie 17 & 18 wells.
- *St. Martin Parish, Louisiana*: The current acquisition of the Happytown Field, Iberville B-5, Iberville A-1, Iberville SWDW

Production History Since 2004

Well Name and Location	WI	1	Investment		Gross Oil Revenue	
Angelina CB Wells	75%	5	\$ 238,000	\$	1,073,627	
Angelina LB Wells	75%	5	\$ 270,000	\$	1,408,407	
Lake St. John Wells Additional Field Development Sale of Field in October, 2007	75%	4	\$ 1,174,500 1,644,549 7,000,000	\$	28,155,854	
N. Mandamus/Armstrong #1 (D&C)	75%	5	\$ 526,100	\$	1,120,599	
NW Mandamus/Coffman (Dryhole)	75%	5	\$ 321,000			
Bay Ridge/Whitaker #1 (D&C)	75%	5	\$ 600,820	\$	561,330	
Coochie Field	80%	5	\$ 880,000	\$	200,000	
Five Well Drill	75%	\$	\$ 1,027,610	\$	11,200,478	
Liverpool Field	75%	5	\$ 1,596,875	\$	1,253,346	
Blanchard	75%	5	\$ 1,445,950	\$	207,262	
Patton Church, funded in-house (Dryhole)	100%					
Weyerhaeuser 9-1 #1 (D&C) Revenue records are with Sanchez Oil & Ga	50% s Corporation	5	\$ 300,000			
Weyerhaeuser 13 #1, funded in-house (Dryhole)100%						
N. Coochie Field/Peabody 44-1 Wildcat (D&C) 75% \$*405,000 approx. \$25,000,000+ Resulting in two new AMI's. Current production 250+/- BOPD * First Well						
Bassett, funded in-house	50%			s	149.596	
Little Cheniere, funded in-house	50%			\$	236,326	
Happytown Field (June 2014 to present)	5%	\$	76,320	\$	716,162	

Personal

Education: University of Southern Mississippi-Business Administration

-Business Administration Parish and State of Residence: St. Tammany Parish, Louisiana Children: Two Zach – 1992 and Isabelle – 2005

Donald A. Goddard, PhD

Director of Geology

I'm a petroleum geologist with 22 years oil and gas industry experience in exploration and production, 18 years in petroleum research (LSU), accompanied with domestic and international, upstream consulting. Having worked in production and drilling operations, I find it advantageous to combine geological and engineering reservoir parameters for obtaining reliable and auditable reserve estimates. Participation in research projects in unconventional gas and oil shale reservoirs, enable me to explain what is required for obtaining economic production rates from such plays. Through work in technology transfer, I became knowledgeable about state of the art drilling and production technologies available for successful field development. Applying such expertise in all projects (workovers, production, horizontal drilling), allows me to focus on a multidisciplinary approach to finding and developing oil and gas resources. My goal is to help my employee/clients achieve high economic returns from their producing properties.

EDUCATION

- University of London, London, UK, Ph.D Marine Geology, 1978
- University of London, London, UK, M. Sc in Marine Geology and Geophysics, 1975
- Florida State University, Tallahassee, Florida, B.S. in Geology, 1965
- Universidad Central de Venezuela, Ingeniero Geólogo, Revalida.

EXPERIENCE

• (May 2011 – Present) Shale Energy International, LLC, Mandeville, LA

Director of Geology: provides geologic and engineering guidance to company as it relates to preparing and carrying-out infill drilling projects in mature fields in Louisiana. Achievements include advice regarding the identification of petroleum rich fields and optimizing oil production in mature fields in Central Louisiana.

• (August 2011 – Present) Petro Invest Energy Services, LLC, Hallandale, FL

Consultant/Operations Manager: achievements include organizing and helping this small, start-up company operate a low cost, low risk project that includes five leases in Montague and Cooke Counties, Texas. Tasks involve performing pulling jobs, workovers (re-perforations/fracture stimulation) and production optimization of the shallow wells (62) in the leases.

• (June 2011 – Present): Liverpool Petroleum, LLC, Baton Rouge, LA

Consultant/Associate: achievements included performing reserve and economic evaluation of company's small (\$500,000) to medium size (\$21 million) projects. The last project was the planning of a horizontal drilling project targeting the oil prone Tuscaloosa Marine Shale (project did not materialize).

• (August 2009 – June 2010): Tekxon Onshore Operating Co., Baton Rouge, LA

Consultant: achievements included: 1) completing exploration and development reports that contained reliable reserve and economic evaluation of company's \$100 million and \$400 million projects, 2) preparing and presenting its E & P portfolio to potential investors, and 3) supplying the company's engineering team with the necessary data for the planning of its exploration vertical and horizontal drilling program.

• 2000 to 2009 Retired: LSU's Center for Energy Studies, Baton Rouge, LA

Achievements included: 1) several integrated field studies of a number of mature oil and gas field in Louisiana that helped small operators improve their bottom line, 2) as Coordinator then Director of the Gulf Coast Region Petroleum Technology Transfer Council (CGR - PTTC), I was responsible for producing over 40 w orkshops during an eight-year period, and 3) in a joint project with the University of Alabama, we successfully completed a five year regional basin analysis and petroleum system characterization and modeling unconventional shale plays located in the North Louisiana Salt Basin. Core duties included regional subsurface studies that included sampling and geochemical analyses of shale. The results were disseminated to the operators through publications and workshops.

Donald A. Goddard, PhD Director of Geology

(cont'd)

• (1996 to Present:) Petroleum Consultant based in the USA Projects and achievements include:

1) Re-development of mature fields in Texas and Louisiana performing integrated field studies using all available geological, engineering, and production data for determining economic potential of the fields.

2) Review of Pemex's E&P studies in northern Mexico gas basins (Burgos and Sabinas) for potential operators.

3) E &P projects in eastern and western Venezuela applying 2D & 3D seismic, drilling, & production technology.

4) Assessment/recommendations for development of the Springhill Formation-Magellan's Basin of southern

Argentina for an interested operator.

• (1991 – 1996@LSU's Basin Research Institute, Baton Rouge, LA

Core duties and achievements as a P etroleum Research Geologist resulted in the completion of several projects in basin analysis, and reservoir characterization of Wilcox and other Tertiary sandstone reservoirs in mature areas of the Gulf Coast region. This was accomplished through detail correlations with electric logs, combined with structural and net sand isopach mapping, core analyses and geochemical techniques.

• (1979 – 1990) Maraven S. A. (PDVSA Group) (Caracas, Venezuela) Manager of Geology (1988-1990): Production-drilling operations, Maracaibo Basin. Headed a team of geologists and petrophysicists responsible for the geologic control during exploration and production drilling activities. Approximately 120 wells were drilled during this period and the production established at 800, 000 BOPD. Chief Production Geologist (1984-1988): Headed a team of geologists and engineers performing integrated field studies of Miocene-Eocene clastic and Cretaceous fractured carbonate reservoirs.

Exploration Geologist-Geophysicist (1979-1984): 2D seismic interpretation and structural mapping for deep offshore targets on Venezuela's continental shelf that resulted in the drilling of 12 exploration wells. I was involved in the drilling of approximately 80 shallow, heavy oil producing wells in the "Orinoco Tar Belt".

TRAINING EXPERIENCE

I've attended more than 20 industry technical and managerial training courses and workshops with AAPG, OGCI, Western Atlas, Schlumberger, Maraven S.A., and in Shell's research center in The Hague, Holland, on topics that include.

- Petroleum Economics
- Production Operations
- 2D and 3D seismic interpretation for exploration and development
- Horizontal Drilling
- Interpretation of logging tools (open hole and cased hole)
- Personnel Management in the petroleum industry

PUBLICATIONS: Includes 55 refereed papers in scientific journals and 15 unpublished in-house company reports.

LANGUAGE SKILLS: Bilingual in English-Spanish

PERSONAL INFORMATION: US citizen; Married

Francis J. Lobrano Operations Partner/General Counsel

Practicing in the Areas of Tax, Business, and Estate Planning; Commercial and Business Law; Mergers and Acquisitions; Federal, State and Local Taxation; Estate Taxation; IRS Representation and Audits; Oil & Gas; Trusts; Wills; Successions; Elder Law; Business Transactions; Corporations; Partnerships; Limited Liability Companies; Non Profit Entities; Community Property; Real Estate; Property Law.

EDUCATION

NEW YORK UNIVERSITY SCHOOL OF LAW

LL.M. in Taxation, May 1993 *HONORS*: Graduate Editor of the New York University Tax Law Review, Fall 1992 - Spring 1993. Recipient of Tax Law Review Scholarship, Fall 1992 - Spring 1993.

TULANE UNIVERSITY SCHOOL OF LAW

Juris Doctorate Degree, May 1991 HONORS: Inducted into the Order of the Coif Graduated Magna Cum Laude Associate Editor of the Tulane Law Review, 1990-91 Member of the Tulane Law Review, 1989-90 Honors in Trial Advocacy, Spring 1991 American Jurisprudence Award in Constitutional Law, Spring 1989 A.N. Yiannopoulos Award in Property, Fall 1989

TULANE UNIVERSITY. A.B. FREEMAN SCHOOL OF BUSINESS

Bachelor of Science Degree in Management, May 1988 Concentration in Accounting *HONORS*: Tulane Honor Scholar, 1984-85 Beta Alpha Psi (Accounting Honor Society) School of Business Dean's List, Spring 1988

PUBLICATIONS AND LECTURES

Speaker, *Like Kind Exchanges and involuntary Conversions in Louisiana*, Lorman Education Services, May 23, 2001.

Speaker, *Buying and Selling a Business- Legal and Tax Considerations*, Construction Financial Management Association - Louisiana Chapter, June 10, 1998. **Speaker**, *Should You Put Your Carrier On Notice? Ethical and Malpractice Issues Arising from Aggressive Valuation Planning*, Tulane Law School 7th Annual Estate Planning Seminar, November, 1997.

Speaker, *The Use of Experts in Tax Litigation - The Good; The Bad and the Ugly*, Louisiana State Bar Association Section on Taxation - Technical Meeting, January 24, 1997.

Speaker, The Limited Liability Company - The Newest Business Entity in Tennessee, 42nd Annual Convention for the Tennessee Association of Public Accountants, 1994.

Note, *Breland y. Schilling: The International Act Exclusion Clause in the General Liability Policy - What Did You Intend?*, 65 Tul. L. Rev. 443 (1990).

PROFESSIONAL EXPERIENCE

Law Office of Francis J. Lobrano, LLC (formerly Lobrano & Lobrano, LLC.), Belle Chasse, Louisiana. Attorney: March 1, 1998 - Present
Hickey & Riess, LLC., New Orleans, Louisiana. Attorney: August 1, 1993 – March 1, 1998
A.B. Freeman School of Business, New Orleans, Louisiana. Adjunct Professor of Taxation: Fall 1994 - Fall 1999
Louisiana Supreme Court, New Orleans, Louisiana
Law Clerk, Honorable Walter F. Marcus, Jr. August 1, 1991 to July 31, 1992

PROFESSIONAL ORGANIZATIONS

Admitted to Louisiana Bar, October 1991 - Board Certified Tax Law Specialist, 2001-Present Admitted to Practice before the United States District Court for the Eastern District of Louisiana Admitted to Practice before the United States Fifth Circuit Court of Appeals Admitted to Practice before the United States Tax Court Admitted to Practice before the United States Court of Federal Claims Member of Plaquemines Parish Bar Association (1993 to present) Member - Louisiana State Bar Association - Tax Specialization Advisory Committee 2003-2008.

PERSONAL

Date of Birth: April 15, 1966. Marital Status: Married to Judge Joy Cossich Lobrano (Married in 1991). Parish and State of Residence: Plaquemines Parish, Louisiana. Children: Two Mae - Year of Birth: 1993; and Nic - Year of Birth: 2001

Donald M. Briggs Chief Financial Officer

Mr. Briggs graduated from McMurry University with a BBA in accounting. Three years as an auditor for Arthur Andersen & Company in their Dallas, Texas office followed. Specialization in the petroleum industry (Halliburton and TXO oil and gas corporation were two of the audit clients) yielded a career long interest in the search for oil and gas.

Directly from AA&CO, the next seven years were dedicated to practice as a CPA, primarily as audit manager for a regional CPA firm, Mouser & Young, CPA's Headquartered in Abilene, Texas, once again with concentration in petroleum industry.

In 1978, as the first oil boom began, prior experience in both financial and operations sectors of the industry, along with the AA&CO. Training, resulted in brief two year position with Prudential Energy Corporation (New York) as executive vice-president in charge of prospect administration. Prudential owned a 50% non-operating working interest in over 1,000 oil and gas wells located in twenty states. These properties were drilled and developed in joint ventures with major independents including coastal and mesa. Responsibilities included joint interest billing audits and file maintenance, as well a new prospect acquisition.

In 1980, Mr. Briggs joined Petro Exploration group as a partner. Over the next five years Petro-Ex raised and managed over \$100 million in drilling funds under Reg D of the Securities and Exchange Commission. Following the tax reform act of 1986 and the oil price plunge of the same year, Petro-Ex's properties were sold and firm closed.

Mr. Briggs then joined Palace Exploration Inc. (New York) as prospect buyer. With an annual budget of \$20 million, the next ten years were dedicated to the acquisition of oil and gas drilling prospects in the mid-continent region. Primary responsibilities were financial due diligence and jib audits.

On retirement of the chairman of Palace in 1995, Mr. Briggs returned to Texas and began and continues today practice as a financial petroleum consultant, specializing in prospect development and administration for small, independent oil and gas companies.

William A. Abt Senior Vice President

Mr. Abt serves as Senior Vice President of Shale Energy Group, Inc. He is a venture management expert with extensive entrepreneurial experience providing analytical, functional, and administrative skills in all aspects of corporate management. He has assisted with "start-ups" and helped seasoned companies raise the financing to acquire smaller companies for over 20 years.

Mr. Abt has participated in all aspects of the oil and gas industry including projects in Texas, Louisiana, Colorado, Kansas, and Oklahoma. He offers expertise both in resource exploration and strengths in all areas of corporate development. Since 1997, he has been a contributor in the design, start-up, execution and management of operations in the oil sector. He has also contributed his expertise in many energy related sectors including wind, solar and bio fuels.

Mr. Abt offers a unique and specialized skill set with experience to compliment and synergistically further Shale Energy's corporate business model.

Carl Clifton Vice President of Acquisitions

Mr. Clifton has been involved in Energy production and savings for over thirty five years. He has been involved in both traditional carbon energy and renewable energy.

Mr. Clifton was born in Craig Colorado and grew up working on his grandparent's farm. He started farming at an early age of eight. He learned the value of hard work and the value of a dollar and claims this to be one of his most important life lessons.

Carl got involved in Energy and especially American Energy after watching the effects of high fuel cost on the farm after the oil crises of the 1970. He realized that if America was to stay strong and viable we could not be dependent on other countries for our energy needs. His passion for business, specifically in the energy sector was born. He has held positions as General Sales Manager for Alco, a triple-pane energy saving window company, for 15 years running operations in Colorado, New Mexico and California. More recently, he was involved as a Partner of Patented Organic, a revolutionary organic fertilizer. Mr. Clifton has also been involved with Global Energy Savings as a partner distributing devices that recycle wasted energy from electric motors. As a partner in Arion Energy, Mr. Clifton was responsible for leasing farm and ranch ground, school roof tops and industrial roofs for Wind and Solar and Bio Gas projects as well as permitting and approval for the projects. Carl spear headed the negotiations with the T. Boone Pickens, Company to sell them high quality bio-gas for Semi-Truck conversion programs.

Ann Kaiser Corporate Comptroller

Ann Kaiser is the Corporate Comptroller for Shale Energy Group. Ms. Kaiser applies years of dedicated service and enjoys work in oil and gas with Shale Energy as Comptroller. She was born and raised in the Natchez area and attended and graduated from the public school system where she participated in school activities, Pep Squad, Beta Club, FBLA, etc.

Ms. Kaiser is a graduate of Louisiana Tech University with a Bachelor of Science in Accounting. She was active with the Association of Baptist Students.

Ms. Kaiser went into public accounting with a local CPA firm for seven years, preparing books for various clients and tax returns, mostly oil and gas related. She found oil and gas accounting and taxation to be very challenging. She made the decision to leave public accounting and entered into corporate accounting for a local oil and gas company (T&F) and has continued to work for oil and gas companies since. During this time she has also worked in the banking community and various other positions. Ms. Kaiser is also the Accountant and Manager of Internal Finances for a local based chain of hardware stores.

Nylea Cooper Business Operations Manager

Nylea Cooper is the Business Operations Manager for Shale Energy Group. Ms. Cooper works with Shale Energy Executives to establish and to execute the strategic direction of the Company's operations.

Ms. Cooper is a graduate of Tulane University in New Orleans, Louisiana with a Bachelor of Arts degree in Communication. She has had a diversified career in marketing and management, having devoted 20 years to a variety of management positions. Her professional career has included management positions in the private, non-profit, and higher education sectors.

Currently, Ms. Cooper manages the day to day operations of the home office that includes a wide range of responsibilities involving comprehensive team support, human resources, training, communications related to operations and investor relations. She also handles the development and implementation of Shale Energy's brand, social media, public relations, and website and online strategies. Ms. Cooper also works along with the executive team to expand the company's presence. In addition she coordinates work flow, acts as director of communications, and manages the technical support area.

The Operator. SEI Operating, LLC, a Louisiana Limited Liability Company, with primary operations in Texas, will serve as the Operator of the Well.

Hawkins ExxonMobil Gas Plant

TRAFES

Hawkins ExxonMobil Gas Plant High security visible from road

ali pi

www.Forbes.com 1/14/2010 @ 12:25PM

ExxonMobil Extends Life Of Texas Field

ExxonMobil announced it will recover an additional 40 million barrels of oil at the Hawkins Field in northeast Texas, equal to the annual energy needs of more than one million Texas households.

The project will extend the life of the field, discovered by the oil giant in 1940, for an additional 25 years. Though a small part of ExxonMobil's reserves the extension of life for such a mature oil feed is at least some evidence that new technologies can help push back the reckoning of the world's "peak oil" moment.

□ ExxonMobil is applying some of its most advanced technologies to mature oil and natural gas fields. The investment is part of an ongoing effort to find, develop and produce more domestic supplies of oil and gas to meet the country's growing energy needs, said Kok-Yew See, ExxonMobils production manager. □These advanced technologies breathe life into mature fields, thereby producing more resources for energy consumers.□

See said ExxonMobil has invested more than \$700 million in Texas over the past three years to help create jobs and maintain the states position as the leading oil and natural gas producer.

ExxonMobil will install new facilities at the Hawkins Field to recover and reinject nitrogen and other gases from the fields natural gas production. The reinjection of these gases will reduce the plant's air emissions by almost onethird, the company said.

Construction is expected to begin in the first quarter 2010. At its peak, the ExxonMobil project will employ a construction workforce of about 300 people. Project start-up is anticipated in late 2011.

Hawkins ExxonMobil Gas Plant

Hawkins ExxonMobil Gas Plant Newly Constructed Office Building 34

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WARNING

Private Property NO TRESPASSING

ENTRY FORBIDDEN WITHOUT PERMISSION OF

XTO Energy Inc.

Texas Penal Code 30.05

Hawkins ExxonMobil Gas Plant XTO Energy, Inc.

Hawkins ExxonMobil Gas Plant

Hawkins ExxonMobil Gas Plant Cooling Towers TP.

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BTH

Hawkins ExxonMobil Gas Plant And Cooling Towers

Hawkins ExxonMobil Gas Plant

PRAXAIR

Forward Looking Statement

- This summary presents the company's best and current estimate of the future potential of the business described herein at the time this document was created. It must also be recognized that no business is free of major or inherent risks, and few business plans are free of errors or omissions, therefore one should be aware that this business has inherent risks that must be fully evaluated, discussed with management, and discussed with experts fully capable of interpreting the information presented.
- With the technological advancements over the past 30 years the success rate for drilling and completing successful wells has gone up substantially; however, to date there is no certain method to determine whether or not a project or prospect will find or produce oil and/or gas in sufficient quantity or quality to result in commercial production. Certain projections have been made regarding the potential daily production and the amount of recoverable reserves. While we feel these are reasonable estimates the actual daily production and recoverable reserves are likely to be more or less than estimates. Many risks are involved that experience, knowledge, scientific evaluation and information cannot avoid. Past success is no guarantee of future success. Actual results may vary dramatically. There are no assurances or guarantees of success.
- This should be considered to be a brochure and does not represent an attempt to buy or sell securities.