GSM
a Robert D. Grace Company

GSM, INC.

A Professional Team of Registered Consulting Petroleum Engineers

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March 19, 2010

Mr. Eric Rasmusen, Executor
2810 Dale Court
Bloomington, Indiana 47401

Re: Economic Evaluation of The Marilyn Suppes Rasmusen Estate's royalty interest in Proved Developed Producing Reserves in the Suppes Nos. 1 and 2 gas wells located in the Moore County, Texas as of July 13, 2009.

Dear Mr. Rasmusen:

An engineering evaluation of the Marilyn Suppes Rasmusen Estate's royalty interest in two active gas wells has been performed to determine the remaining recoverable reserves, future net revenues, and fair market value as of July 13, 2009, the date of death. The net reserves, net revenues, and fair market value shown in this study assume that initial gas prices in effect on July 13, 2009 would escalate at three percent per year for 180 months (15 years) and then remain constant over the remaining life of the properties. Operating expenses based on GSM experience in the area were allowed to escalate at three percent per year over the life of the leases without a cap. All reserves and cash flows presented in this report are referenced as of July 13, 2009. A summary of the reserves, taxes, operating costs, capital costs, BFIT cash flows and fair market value to the Marilyn Suppes Rasmusen Estate's royalty interest in the two gas leases are as follows:

	Marilyn Suppes Rasmusen Royalty Interest *
Net Reserves to Evaluated Interests:	
Oil, BBL	0
Gas, MCF	22,027
Condensate, BBL	0
Future Net Revenue Before Operating Costs, Capital Costs, Severance, and Ad Valorem Taxes, $	150,903
Operating Costs, $	0

Severance and Ad Valorem Taxes, $	17,354
Capital Costs, $	0
Future Net Revenue:	
Undiscounted, $	133,549
Discounted Per Annum at 10 Percent, $	51,619
Risk Adjusted Discount Rate, %	14.55
Fair Market Value, $	40,037

* Subject to round off correction.

If I can be of further assistance to you in any way, please do not hesitate to call me.

Respectfully,

STATE OF TEXAS
KEITH SELINGER
29700
LICENSED
PROFESSIONAL ENGINEER

GSM, INC.
TEXAS
F-001201

Keith A. Selinger
Vice President – Reservoir Engineering
Licensed Professional Engineer

KAS/jb

GSM, Inc. Professional Registration

TABLE OF CONTENTS

Page

Engineering Report ---------- 1

Area Maps
- Texas ---------- 3
- Moore County ---------- 4
- Plat map ---------- 5

Economic Evaluation

- One Line Summary ---------- 6
- Summary ---------- 7

Fair Market Value of Individual Properties ---------- 8

APPENDICES

Economic Evaluation

- Summary ---------- 9
- One Line Summary ---------- 10

Individual Economic Evaluations

- Suppes No. 1 (25631) ---------- 11
- Suppes No. 2 (25632) ---------- 12

Individual Well Data

- Suppes No. 1 (25631) ---------- 13
- Suppes No. 2 (25632) ---------- 17

Definitions and Abbreviations ---------- 21

GENERAL

A reserve and present worth evaluation of the Marilyn Suppes Rasmusen Estate's royalty interest in two gas leases located in the West Panhandle Field, Moore County, Texas, has been completed per your request. This study evaluates proved developed producing reserves but does not consider behind pipe or undeveloped reserves. Future reserves, cash flows and fair market value presented in this report are referenced as of July 13, 2009. Attachment No. 1 is a state map showing the location of Moore County, the area of interest within the state of Texas. Attachment No. 2 is a county map showing the location of the wells evaluated in this report within Moore County. A lease plat map, Attachment No. 3, shows the locations of the Suppes No. 1 and Suppes No. 2 gas wells within Section 283, Block 44, H & TC R.R. Co. Survey.

The royalty interests evaluated in this report were taken from Moore County Appraisal information sheets provided by the estate. To evaluate these interests, the operators net lease interest, plus monthly operating cost were utilized to determine when each property becomes uneconomical to operate. Net reserves and cash flows were then calculated for the evaluated royalty interests in each producing property. Production data, product prices, and lease operating expenses used to evaluate these wells were taken directly from Drilling Information, IHS Energy, Texas Comptroller reports, GSM Consulting, Inc. experience, or from data obtained from Marilyn Suppes Rasmusen Estate.

Gas prices used in this report were taken from Texas Comptroller reports for July 2009, escalated at three percent per year for 180 months and then held flat for the remainder of the life of the properties. Severance taxes of 7.5 percent for gas and 4.6 percent for oil and condensate plus an ad valorem tax of 4.0 percent were utilized in the evaluation of the properties.

An IBM personal computer, Eureka Evaluation Program, and individual producing rate versus time curves were utilized to evaluate reserves and cash flows. The Eureka Program uses the initial producing rate, anticipated production decline, monthly operating expenses, severance taxes, ad valorem taxes, ownership interest, and product price to schedule production and revenue for a period of 60 years or until the projected revenue equals the projected monthly operating expense.

The BFIT economic evaluations for the evaluated properties are included in the Appendices of this report. Well name, operator, evaluated interest, and location are shown at the top of the economic evaluation sheets. Producing rate versus time plots, gas, oil, and condensate production data, along with Texas Comptroller product prices for the properties, can also be found in the Report Appendices.

In my opinion, this study was prepared in accordance with good engineering practice and presents an estimate as of July 13, 2009, of the value of the proved developed producing reserves attributable to the Marilyn Suppes Rasmusen Estate's royalty interests. This engineering report does not consider any salvage value for the leases and well equipment nor the cost of abandoning the property. The reserves and cash flows presented in this report are estimates only and should not be construed as being exact quantities. The present remaining reserves ultimately recovered may be more or less than these estimates and the revenues and costs can likewise be expected to vary from those used in the study. Future operations that are not anticipated at this time could also affect the remaining recoverable reserves, costs, and values. Property identification, working and revenue interests, royalty interest, taxes, product prices, and operating expenses used in this study were used as supplied to GSM Consulting, Inc. or based on GSM Consulting, Inc. experience with producing properties, and were not verified by inspection of internal records and files, nor was a physical inspection made of the producing properties. The reserves and cash flows estimated in this report are based on the assumption

that the properties are not negatively affected by the existence of hazardous substances or detrimental environmental conditions. GSM Consulting, Inc. as experts in the identification of hazardous substances or detrimental environmental conditions has not been asked to visit the various leases or to render an opinion as to the properties' environmental condition. It is possible that tests and inspections conducted by a qualified hazardous substance or an environmental expert could reveal the existence of hazardous material and/or environmental conditions on or around the properties that would negatively affect the properties' value. GSM Consulting, Inc. has been asked to determine the fair market value (FMV) of Marilyn Suppes Rasmusen Estate's royalty interest in the two producing properties as of July 13, 2009. This FMV can be found in the conclusion section of this report. GSM Consulting, Inc. reserves the right to alter the calculation of reserves, cash flows and FMV, presented in this report if corrections to these data are subsequently required. All numbers shown on the attachments are subject to round off correction. This report may not be reproduced in part or in total, nor may it be used in a private placement memorandum or sale prospectus without the expressed written permission of GSM Consulting, Inc.

EVALUATION METHOD

Individual monthly production data for the two gas leases were plotted through July 2009, and projected into the future. Remaining recoverable reserves were determined from the established trends seen on the producing rate versus time plots. All of the evaluated wells appear to be producing at capacity or were determined to be at capacity as of July 13, 2009. The projected starting rates, as of July 13, 2009, and the anticipated declines are shown on the individual producing rate versus time plots included in the Appendices of this report.

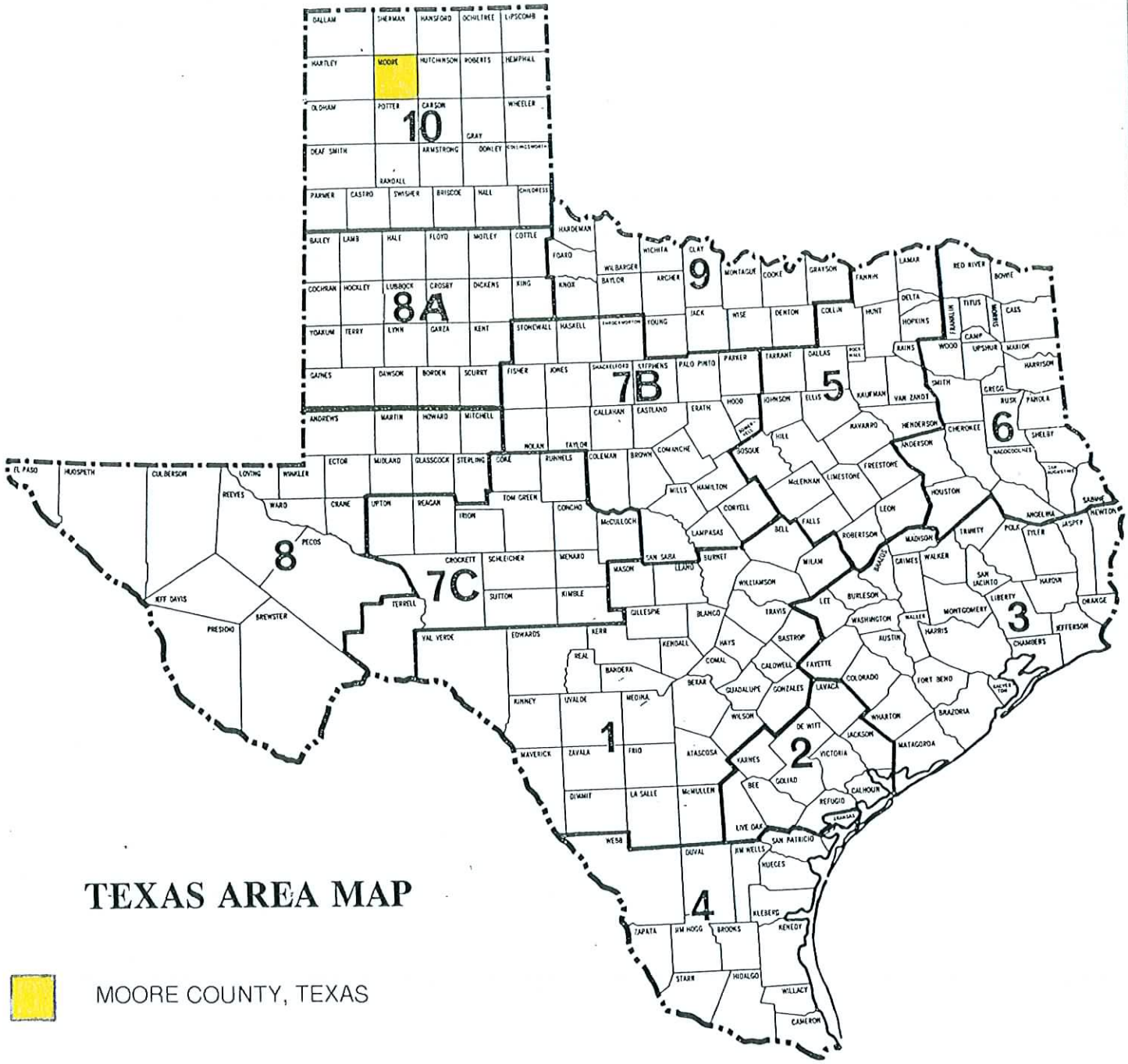
CONCLUSIONS

A one-line summary of reserves and cash flows and a schedule of future production with generated revenues to the Marilyn Suppes Rasmusen Estate's royalty interest under the pricing conditions set out above are shown on Attachments Nos. 4 and 5, respectively.

The net cumulative BFIT cash flow discounted at ten percent for the proved developed producing reserves is $51,619. The corresponding undiscounted BFIT cash flow is $133,549. These cash flows will be generated by net remaining recoverable reserves to the estate of 22,027 MCF of gas, 0 STB of oil, and 0 STB of condensate.

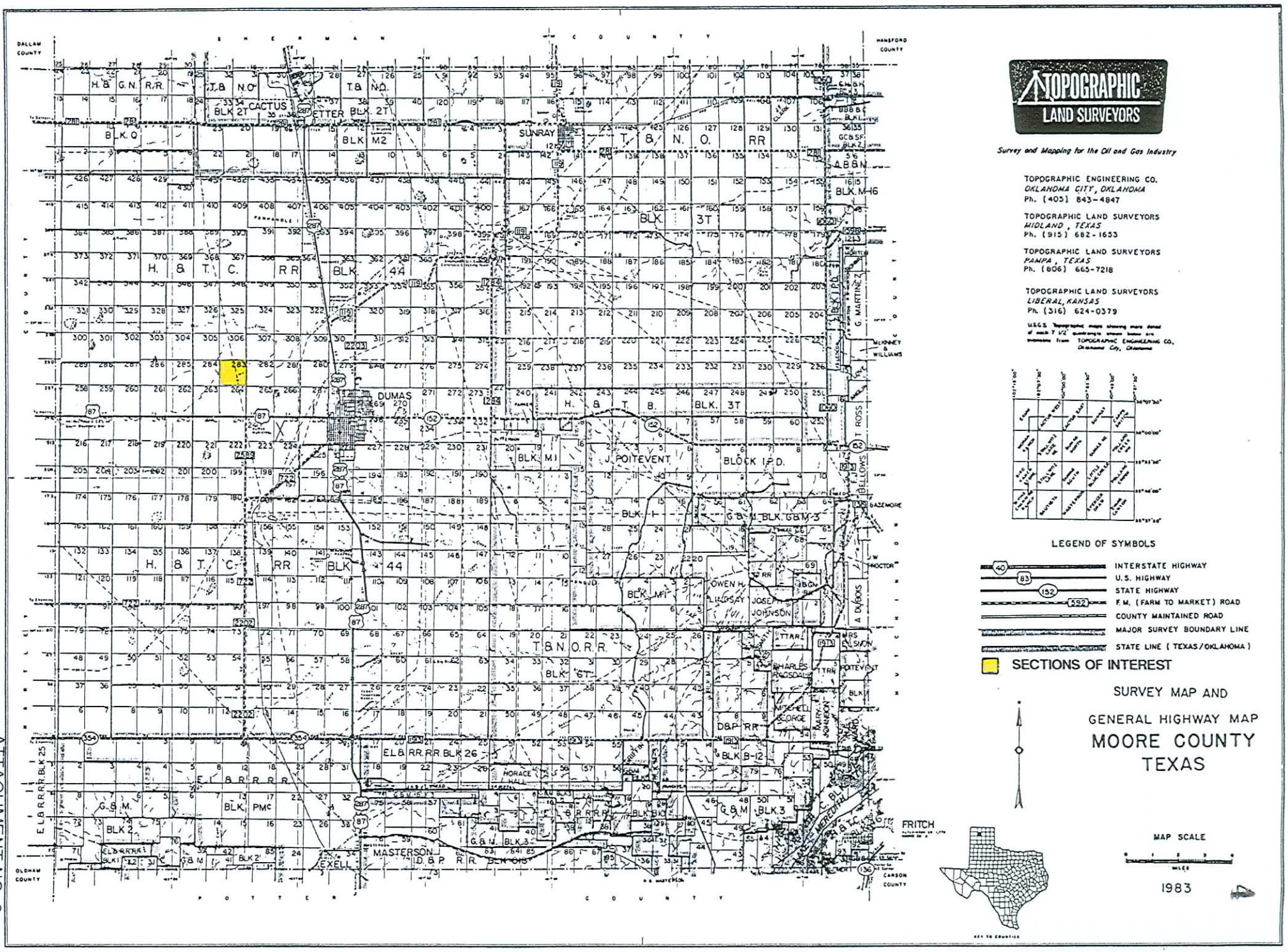
FAIR MARKET VALUE

The fair market value (FMV) for the Marilyn Suppes Rasmusen Estate's royalty interest evaluated in this report under the pricing conditions set out above is $40,037, as of July 13, 2009, the date of death. This FMV was calculated from the total interest summary sheet, Attachment No. 5, using the average of the BFIT cumulative net cash flow discounted at twenty-five percent and the cumulative net cash flow discounted at twelve percent multiplied by 0.71. This value was then multiplied by 1.3578 to adjust the FMV for sales conditions. This 1.3578 factor is based on a statistical study of FMV's and actual sales for over six hundred producing properties sold at industry auctions. The FMV of $40,037 is equivalent to a risk adjusted discount rate of 14.55 percent. Attachment No. 6 shows the FMV for the individual gas leases evaluated in this report. The FMV is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.

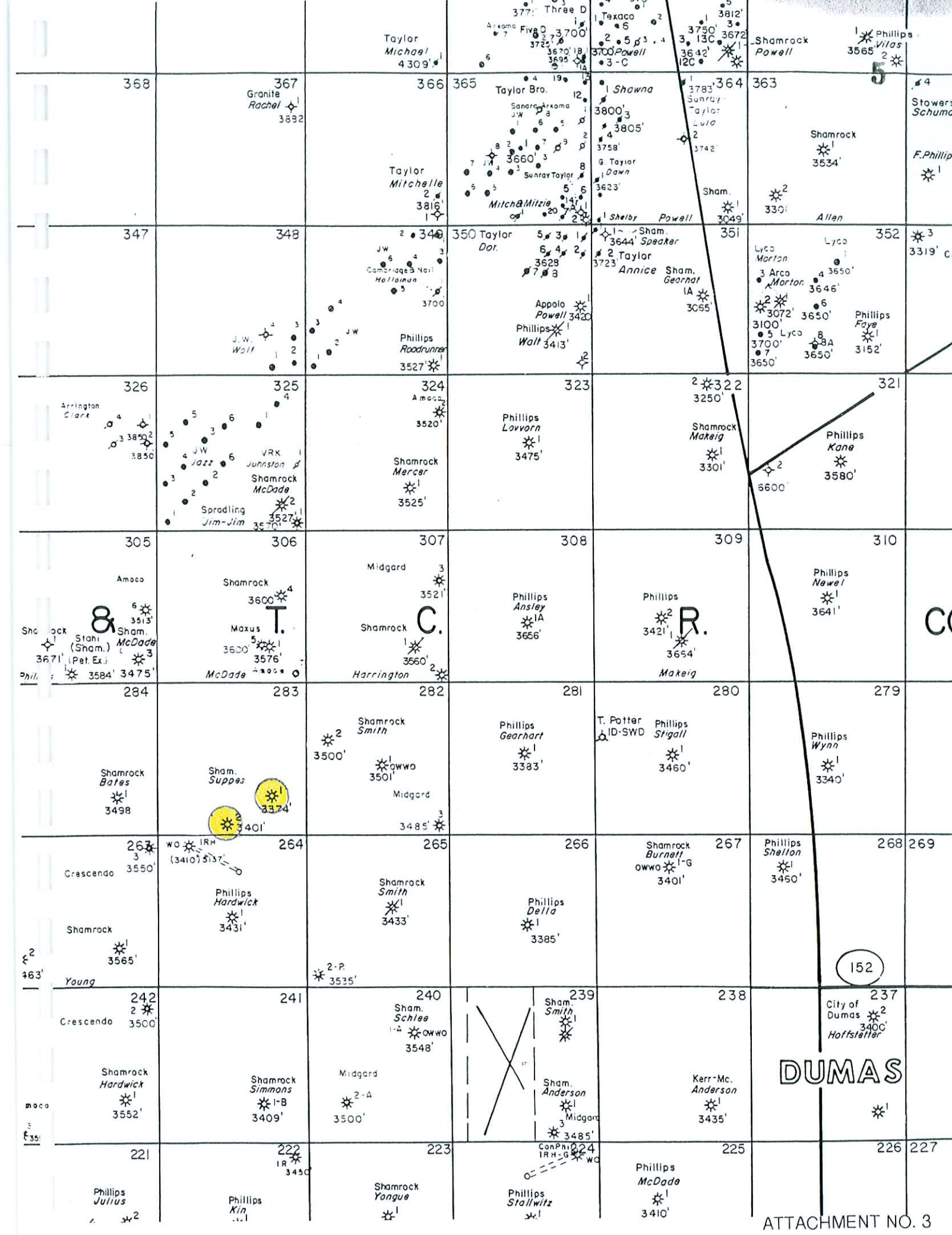


TEXAS AREA MAP

MOORE COUNTY, TEXAS



ATTACHMENT NO. 2



ATTACHMENT NO. 3

SUMMARY

G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday Mar 18, 2010
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AS of Date: JUL2009

LIFE	GROSS WELLCOUNT ---WELLS---	GROSS OIL PRODUCTION ===MBBLS===	GROSS COND PRODUCTION ===MBBLS===	GROSS GAS PRODUCTION ===MMSCF===	NET OIL PRODUCTION ===MBBLS===	NET COND PRODUCTION ===MBBLS===	NET GAS PRODUCTION ===MMSCF===	NET TOTAL LOE+TAX ====M$=====	NET BFIT CASHFLOW ====M$=====	BFIT CF DISC 10.00% ====M$=====
SUPPES NO. 1 (25631)										
2.2 Yr	1.000	0.000	0.000	6.362	0.000	0.000	0.166	0.097	0.750	0.677
SUPPES NO. 2 (25632)										
39.4Yr	1.000	0.000	0.000	839.472	0.000	0.000	21.862	17.256	132.799	50.942
SUMMARY										
39.4Yr	1.055	0.000	0.000	845.834	0.000	0.000	22.027	17.354	133.549	51.619

ATTACHMENT NO. 4

SUMMARY

G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday Mar 18, 2010
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AS of Date: JUL2009

SUMMARY
MARILYN SUPPES RASMUSEN ESTAE
AS OF JULY 13, 2009
PROVED DEVELOPED PRODUCING
BFIT EVALUATION

SUMMARY
ESTATE OF MARILYN SUPPES RASMUSEN
ESCALATED PRICE CASE
BFIT EVALUATION

NPV 5.000%	75.927 BFIT
NPV 12.00%	45.700 BFIT
NPV 15.00%	39.024 BFIT
NPV 20.00%	31.494 BFIT
NPV 25.00%	26.526 BFIT
IRR	>100% BFIT
PAYOUT	JUL2009 BFIT
PI	N/A BFIT

	PRICES			GROSS RESERVES				
	BEGINNING	ENDING	AVERAGE	CUMULATIVE	REMAINING	ULTIMATE	%REMANING	
OIL	0.00	0.00	0.00	0.000	0.000	0.000	0.000	OIL
GAS	5.19	8.10	6.85	0.000	845.834	845.834	100.000	GAS
COND	0.00	0.00	0.00	0.000	0.000	0.000	0.000	COND
PRDT	0.00	0.00	0.00	0.000	0.000	0.000	0.000	PRDT

YEAR	GROSS WELLCOUNT	GROSS OIL PRODUCTION	GROSS COND PRODUCTION	GROSS GAS PRODUCTION	NET OIL PRODUCTION	NET COND PRODUCTION	NET GAS PRODUCTION	AVERAGE OIL PRICE	AVERAGE COND PRICE	AVERAGE GAS PRICE
	===WELLS===	===MBBLS===	===MBBLS===	===MMSCF===	===MBBLS===	===MBBLS===	===MMSCF===	===$/BBL===	===$/BBL===	===$/MSCF===
2009(6Mo)	2.000	0.000	0.000	27.775	0.000	0.000	0.723	0.000	0.000	5.190
2010	2.000	0.000	0.000	56.869	0.000	0.000	1.481	0.000	0.000	5.267
2011	1.667	0.000	0.000	52.368	0.000	0.000	1.364	0.000	0.000	5.428
2012	1.000	0.000	0.000	47.546	0.000	0.000	1.238	0.000	0.000	5.598
2013	1.000	0.000	0.000	44.678	0.000	0.000	1.163	0.000	0.000	5.766
2014	1.000	0.000	0.000	41.982	0.000	0.000	1.093	0.000	0.000	5.939
2015	1.000	0.000	0.000	39.449	0.000	0.000	1.027	0.000	0.000	6.117
2016	1.000	0.000	0.000	37.069	0.000	0.000	0.965	0.000	0.000	6.301
2017	1.000	0.000	0.000	34.832	0.000	0.000	0.907	0.000	0.000	6.490
2018	1.000	0.000	0.000	32.731	0.000	0.000	0.852	0.000	0.000	6.684
2019	1.000	0.000	0.000	30.756	0.000	0.000	0.801	0.000	0.000	6.885
2020	1.000	0.000	0.000	28.900	0.000	0.000	0.753	0.000	0.000	7.092
2021	1.000	0.000	0.000	27.156	0.000	0.000	0.707	0.000	0.000	7.304
2022	1.000	0.000	0.000	25.518	0.000	0.000	0.665	0.000	0.000	7.523
2023	1.000	0.000	0.000	23.978	0.000	0.000	0.624	0.000	0.000	7.749
SUBTOTAL	1.149	0.000	0.000	551.607	0.000	0.000	14.365	0.000	0.000	6.189
REMAINING	1.000	0.000	0.000	294.227	0.000	0.000	7.662	0.000	0.000	8.092
TOT 39.4Yr	1.055	0.000	0.000	845.834	0.000	0.000	22.027	0.000	0.000	6.851

YEAR	NET TOTAL REVENUE	NET TOTAL LOE	NET TOTAL PROD TAX	NET TOTAL LOE+TAX	NET LEASE REVENUE	NET TOTAL INVESTMENTS	NET BFIT CASHFLOW	CUM BFIT CASHFLOW	BFIT CF DISC 10.00%	CUM BFIT CF DISC 10.00%
	===M$===	===M$===	===M$===	===M$===	===M$===	===M$===	===M$===	===M$===	===M$===	===M$===
2009(6Mo)	3.754	0.000	0.432	0.432	3.322	0.000	3.322	3.322	3.227	3.227
2010	7.801	0.000	0.897	0.897	6.904	0.000	6.904	10.226	6.255	9.482
2011	7.402	0.000	0.851	0.851	6.551	0.000	6.551	16.777	5.398	14.880
2012	6.932	0.000	0.797	0.797	6.134	0.000	6.134	22.912	4.593	19.473
2013	6.709	0.000	0.772	0.772	5.937	0.000	5.937	28.849	4.041	23.514
2014	6.493	0.000	0.747	0.747	5.746	0.000	5.746	34.595	3.556	27.070
2015	6.284	0.000	0.723	0.723	5.562	0.000	5.562	40.157	3.129	30.199
2016	6.082	0.000	0.699	0.699	5.383	0.000	5.383	45.540	2.753	32.951
2017	5.887	0.000	0.677	0.677	5.210	0.000	5.210	50.750	2.422	35.373
2018	5.698	0.000	0.655	0.655	5.042	0.000	5.042	55.792	2.131	37.505
2019	5.514	0.000	0.634	0.634	4.880	0.000	4.880	60.673	1.875	39.380
2020	5.337	0.000	0.614	0.614	4.723	0.000	4.723	65.396	1.650	41.029
2021	5.166	0.000	0.594	0.594	4.572	0.000	4.572	69.968	1.452	42.481
2022	5.000	0.000	0.575	0.575	4.425	0.000	4.425	74.392	1.277	43.758
2023	4.839	0.000	0.556	0.556	4.282	0.000	4.282	78.675	1.124	44.882
SUBTOTAL	88.898	0.000	10.223	10.223	78.675	0.000	78.675	78.675	44.882	44.882
REMAINING	62.005	0.000	7.131	7.131	54.874	0.000	54.874	133.549	6.737	51.619
TOT 39.4Yr	150.903	0.000	17.354	17.354	133.549	0.000	133.549	133.549	51.619	51.619

ATTACHMENT NO. 5

2

INDIVIDUAL FAIR MARKET VALUE
SUPPES Nos. 1 & 2
MOORE COUNTY, TEXAS

Property Name	TRRC ID No.	FMV - $
Suppes No. 1	25631	$723
Suppes No. 2	25632	$39,314
	Total	**$40,037**

Appendices

SUMMARY

G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday Mar 18, 2010
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AS of Date: JUL2009

SUMMARY
MARILYN SUPPES RASMUSEN ESTAE
AS OF JULY 13, 2009
PROVED DEVELOPED PRODUCING
BFIT EVALUATION

SUMMARY
ESTATE OF MARILYN SUPPES RASMUSEN
ESCALATED PRICE CASE
BFIT EVALUATION

NPV 5.000%	75.927 BFIT
NPV 12.00%	45.700 BFIT
NPV 15.00%	39.024 BFIT
NPV 20.00%	31.494 BFIT
NPV 25.00%	26.526 BFIT
IRR	>100% BFIT
PAYOUT	JUL2009 BFIT
PI	N/A BFIT

	PRICES			GROSS RESERVES				
	BEGINING	ENDING	AVERAGE	CUMULATIVE	REMAINING	ULTIMATE	%REMANING	
OIL	0.00	0.00	0.00	0.000	0.000	0.000	0.000	OIL
GAS	5.19	8.10	6.85	0.000	845.834	845.834	100.000	GAS
COND	0.00	0.00	0.00	0.000	0.000	0.000	0.000	COND
PRDT	0.00	0.00	0.00	0.000	0.000	0.000	0.000	PRDT

YEAR	GROSS WELLCOUNT	GROSS OIL PRODUCTION	GROSS COND PRODUCTION	GROSS GAS PRODUCTION	NET OIL PRODUCTION	NET COND PRODUCTION	NET GAS PRODUCTION	AVERAGE OIL PRICE	AVERAGE COND PRICE	AVERAGE GAS PRICE
	---WELLS---	---MBBLS---	---MBBLS---	---MMSCF---	---MBBLS---	---MBBLS---	---MMSCF---	---$/BBL---	---$/BBL---	--$/MSCF---
2009(6Mo)	2.000	0.000	0.000	27.775	0.000	0.000	0.723	0.000	0.000	5.190
2010	2.000	0.000	0.000	56.869	0.000	0.000	1.481	0.000	0.000	5.267
2011	1.667	0.000	0.000	52.368	0.000	0.000	1.364	0.000	0.000	5.428
2012	1.000	0.000	0.000	47.546	0.000	0.000	1.238	0.000	0.000	5.598
2013	1.000	0.000	0.000	44.678	0.000	0.000	1.163	0.000	0.000	5.766
2014	1.000	0.000	0.000	41.982	0.000	0.000	1.093	0.000	0.000	5.939
2015	1.000	0.000	0.000	39.449	0.000	0.000	1.027	0.000	0.000	6.117
2016	1.000	0.000	0.000	37.069	0.000	0.000	0.965	0.000	0.000	6.301
2017	1.000	0.000	0.000	34.832	0.000	0.000	0.907	0.000	0.000	6.490
2018	1.000	0.000	0.000	32.731	0.000	0.000	0.852	0.000	0.000	6.684
2019	1.000	0.000	0.000	30.756	0.000	0.000	0.801	0.000	0.000	6.885
2020	1.000	0.000	0.000	28.900	0.000	0.000	0.753	0.000	0.000	7.092
2021	1.000	0.000	0.000	27.156	0.000	0.000	0.707	0.000	0.000	7.304
2022	1.000	0.000	0.000	25.518	0.000	0.000	0.665	0.000	0.000	7.523
2023	1.000	0.000	0.000	23.978	0.000	0.000	0.624	0.000	0.000	7.749
SUBTOTAL	1.149	0.000	0.000	551.607	0.000	0.000	14.365	0.000	0.000	6.189
REMAINING	1.000	0.000	0.000	294.227	0.000	0.000	7.662	0.000	0.000	8.092
TOT 39.4Yr	1.055	0.000	0.000	845.834	0.000	0.000	22.027	0.000	0.000	6.851

YEAR	NET TOTAL REVENUE	NET TOTAL LOE	NET TOTAL PROD TAX	NET TOTAL LOE+TAX	NET LEASE REVENUE	NET TOTAL INVESTMENTS	NET BFIT CASHFLOW	CUM BFIT CASHFLOW	BFIT CF DISC 10.00%	CUM BFIT CF DISC 10.00%
	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----	----M$-----
2009(6Mo)	3.754	0.000	0.432	0.432	3.322	0.000	3.322	3.322	3.227	3.227
2010	7.801	0.000	0.897	0.897	6.904	0.000	6.904	10.226	6.255	9.482
2011	7.402	0.000	0.851	0.851	6.551	0.000	6.551	16.777	5.398	14.880
2012	6.932	0.000	0.797	0.797	6.134	0.000	6.134	22.912	4.593	19.473
2013	6.709	0.000	0.772	0.772	5.937	0.000	5.937	28.849	4.041	23.514
2014	6.493	0.000	0.747	0.747	5.746	0.000	5.746	34.595	3.556	27.070
2015	6.284	0.000	0.723	0.723	5.562	0.000	5.562	40.157	3.129	30.199
2016	6.082	0.000	0.699	0.699	5.383	0.000	5.383	45.540	2.753	32.951
2017	5.887	0.000	0.677	0.677	5.210	0.000	5.210	50.750	2.422	35.373
2018	5.698	0.000	0.655	0.655	5.042	0.000	5.042	55.792	2.131	37.505
2019	5.514	0.000	0.634	0.634	4.880	0.000	4.880	60.673	1.875	39.380
2020	5.337	0.000	0.614	0.614	4.723	0.000	4.723	65.396	1.650	41.029
2021	5.166	0.000	0.594	0.594	4.572	0.000	4.572	69.968	1.452	42.481
2022	5.000	0.000	0.575	0.575	4.425	0.000	4.425	74.392	1.277	43.758
2023	4.839	0.000	0.556	0.556	4.282	0.000	4.282	78.675	1.124	44.882
SUBTOTAL	89.898	0.000	10.223	10.223	78.675	0.000	78.675	78.675	44.882	44.882
REMAINING	62.005	0.000	7.131	7.131	54.874	0.000	54.874	133.549	6.737	51.619
TOT 39.4Yr	150.903	0.000	17.354	17.354	133.549	0.000	133.549	133.549	51.619	51.619

SUMMARY

G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday Mar 18, 2010
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AS of Date: JUL2009

LIFE	GROSS WELLCOUNT	GROSS OIL PRODUCTION	GROSS COND PRODUCTION	GROSS GAS PRODUCTION	NET OIL PRODUCTION	NET COND PRODUCTION	NET GAS PRODUCTION	NET TOTAL LOE+TAX	NET BFIT CASHFLOW	BFIT CF DISC 10.00%
	===WELLS===	===MBBLS===	===MBBLS===	===MMSCF===	===MBBLS===	===MBBLS===	===MMSCF===	====M$=====	----M$-----	----M$-----
SUPPES NO. 1 (25631)										
2.2 Yr	1.000	0.000	0.000	6.362	0.000	0.000	0.166	0.097	0.750	0.677
SUPPES NO. 2 (25632)										
39.4Yr	1.000	0.000	0.000	839.472	0.000	0.000	21.862	17.256	132.799	50.942
SUMMARY										
39.4Yr	1.055	0.000	0.000	845.834	0.000	0.000	22.027	17.354	133.549	51.619

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G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday, Mar 18, 2010
03:51:25 PM

AS of Date: JUL2009

NAME: SUPPES NO. 1 (25631)
FIELD: PANHANDLE, WEST
LOCATION: MOORE COUNTY, TEXAS
FORMATION: PERMIAN
OPERATOR: BP AMERICA PRODCUING COMPANY

ROYALTY INTEREST
NET REMAINING RESERVES
AS OF JULY 13, 2009
ESCALATED PRICE CASE
BFIT EVALUATION

NPV 5.000%	0.711 BFIT
NPV 12.00%	0.664 BFIT
NPV 15.00%	0.646 BFIT
NPV 20.00%	0.618 BFIT
NPV 25.00%	0.593 BFIT
IRR	>100% BFIT
PAYOUT	JUL2009 BFIT
PI	N/A BFIT

INTERESTS AND EFFECTIVE DATE					
COST	OIL	GAS	COND	PRODT	DATE
0.00000	0.02604	0.02604	0.02604	0.02604	JUL2009

	PRICES			GROSS RESERVES				
	BEGINING	ENDING	AVERAGE	CUMULATIVE	REMAINING	ULTIMATE	%REMANING	
OIL	0.00	0.00	0.00	0.000	0.000	0.000	0.000	OIL
GAS	5.03	5.33	5.11	0.000	6.362	6.362	100.000	GAS
COND	0.00	0.00	0.00	0.000	0.000	0.000	0.000	COND
PRDT	0.00	0.00	0.00	0.000	0.000	0.000	0.000	PRDT

YEAR	GROSS WELLCOUNT	GROSS OIL PRODUCTION	GROSS COND PRODUCTION	GROSS GAS PRODUCTION	NET OIL PRODUCTION	NET COND PRODUCTION	NET GAS PRODUCTION	AVERAGE OIL PRICE	AVERAGE COND PRICE	AVERAGE GAS PRICE
	===WELLS===	===MBBLS===	===MBBLS===	===MMSCF===	===MBBLS===	===MBBLS===	===MMSCF===	==$/BBL===	===$/BBL===	==$/MSCF===
2009(6Mo)	1.000	0.000	0.000	1.572	0.000	0.000	0.041	0.000	0.000	5.027
2010	1.000	0.000	0.000	3.021	0.000	0.000	0.079	0.000	0.000	5.099
2011(8Mo)	1.000	0.000	0.000	1.769	0.000	0.000	0.046	0.000	0.000	5.215
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	1.000	0.000	0.000	6.362	0.000	0.000	0.166	0.000	0.000	5.114
REMAINING	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOT 2.2 Yr	1.000	0.000	0.000	6.362	0.000	0.000	0.166	0.000	0.000	5.114

YEAR	NET TOTAL REVENUE	NET TOTAL LOE	NET TOTAL PROD TAX	NET TOTAL LOE+TAX	NET LEASE REVENUE	NET TOTAL INVESTMENTS	NET BFIT CASHFLOW	CUM BFIT CASHFLOW	BFIT CF DISC 10.00%	CUM BFIT CF DISC 10.00%
	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====
2009(6Mo)	0.206	0.000	0.024	0.024	0.182	0.000	0.182	0.182	0.177	0.177
2010	0.401	0.000	0.046	0.046	0.355	0.000	0.355	0.537	0.322	0.499
2011(8Mo)	0.240	0.000	0.028	0.028	0.213	0.000	0.213	0.750	0.178	0.677
2012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
2023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
SUBTOTAL	0.847	0.000	0.097	0.097	0.750	0.000	0.750	0.750	0.677	0.677
REMAINING	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.677
TOT 2.2 Yr	0.847	0.000	0.097	0.097	0.750	0.000	0.750	0.750	0.677	0.677

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G.S.M., INC.
RESERVOIR ENGINEERING
RESERVES AND ECONOMICS

Thursday Mar 18, 2010
03:51:26 PM

AS of Date: JUL2009

NAME: SUPPES NO. 2 (25632)
FIELD: PANHANDLE, WEST
LOCATION: MOORE COUNTY, TEXAS
FORMATION: PERMIAN
OPERATOR: BP AMERICA PRODCUING COMPANY

ROYALTY INTEREST
NET REMAINING RESERVES
AS OF JULY 13, 2009
ESCALATED PRICE CASE
BFIT EVALUATION

NPV 5.000%	75.216 BFIT
NPV 12.00%	45.036 BFIT
NPV 15.00%	38.378 BFIT
NPV 20.00%	30.875 BFIT
NPV 25.00%	25.933 BFIT
IRR	>100% BFIT
PAYOUT	JUL2009 BFIT
PI	N/A BFIT

INTERESTS AND EFFECTIVE DATE						PRICES			GROSS RESERVES				
COST	OIL	GAS	COND	PRODT	DATE		BEGINING	ENDING	AVERAGE	CUMULATIVE	REMAINING	ULTIMATE	%REMAINING	
0.00000	0.02604	0.02604	0.02604	0.02604	JUL2009	OIL	0.00	0.00	0.00	0.000	0.000	0.000	0.000	OIL
						GAS	5.20	8.10	6.86	0.000	839.472	839.472	100.000	GAS
						COND	0.00	0.00	0.00	0.000	0.000	0.000	0.000	COND
						PRDT	0.00	0.00	0.00	0.000	0.000	0.000	0.000	PRDT

YEAR	GROSS WELLCOUNT	GROSS OIL PRODUCTION	GROSS COND PRODUCTION	GROSS GAS PRODUCTION	NET OIL PRODUCTION	NET COND PRODUCTION	NET GAS PRODUCTION	AVERAGE OIL PRICE	AVERAGE COND PRICE	AVERAGE GAS PRICE
	===WELLS===	===MBBLS===	===MBBLS===	===MMSCF===	===MBBLS===	===MBBLS===	===MMSCF===	===$/BBL===	===$/BBL===	==$/MSCF===
2009(6Mo)	1.000	0.000	0.000	26.203	0.000	0.000	0.682	0.000	0.000	5.200
2010	1.000	0.000	0.000	53.848	0.000	0.000	1.402	0.000	0.000	5.277
2011	1.000	0.000	0.000	50.599	0.000	0.000	1.318	0.000	0.000	5.435
2012	1.000	0.000	0.000	47.546	0.000	0.000	1.238	0.000	0.000	5.598
2013	1.000	0.000	0.000	44.678	0.000	0.000	1.163	0.000	0.000	5.766
2014	1.000	0.000	0.000	41.982	0.000	0.000	1.093	0.000	0.000	5.939
2015	1.000	0.000	0.000	39.449	0.000	0.000	1.027	0.000	0.000	6.117
2016	1.000	0.000	0.000	37.069	0.000	0.000	0.965	0.000	0.000	6.301
2017	1.000	0.000	0.000	34.832	0.000	0.000	0.907	0.000	0.000	6.490
2018	1.000	0.000	0.000	32.731	0.000	0.000	0.852	0.000	0.000	6.684
2019	1.000	0.000	0.000	30.756	0.000	0.000	0.801	0.000	0.000	6.885
2020	1.000	0.000	0.000	28.900	0.000	0.000	0.753	0.000	0.000	7.092
2021	1.000	0.000	0.000	27.156	0.000	0.000	0.707	0.000	0.000	7.304
2022	1.000	0.000	0.000	25.518	0.000	0.000	0.665	0.000	0.000	7.523
2023	1.000	0.000	0.000	23.978	0.000	0.000	0.624	0.000	0.000	7.749
SUBTOTAL	1.000	0.000	0.000	545.245	0.000	0.000	14.199	0.000	0.000	6.201
REMAINING	1.000	0.000	0.000	294.227	0.000	0.000	7.662	0.000	0.000	8.092
TOT 39.4Yr	1.000	0.000	0.000	839.472	0.000	0.000	21.862	0.000	0.000	6.864

YEAR	NET TOTAL REVENUE	NET TOTAL LOE	NET TOTAL PROD TAX	NET TOTAL LOE+TAX	NET LEASE REVENUE	NET TOTAL INVESTMENTS	NET BFIT CASHFLOW	CUM BFIT CASHFLOW	BFIT CF DISC 10.00%	CUM BFIT CF DISC 10.00%
	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====	====M$=====
2009(6Mo)	3.548	0.000	0.408	0.408	3.140	0.000	3.140	3.140	3.050	3.050
2010	7.400	0.000	0.851	0.851	6.549	0.000	6.549	9.689	5.933	8.983
2011	7.162	0.000	0.824	0.824	6.338	0.000	6.338	16.027	5.220	14.203
2012	6.932	0.000	0.797	0.797	6.134	0.000	6.134	22.162	4.593	18.796
2013	6.709	0.000	0.772	0.772	5.937	0.000	5.937	28.099	4.041	22.837
2014	6.493	0.000	0.747	0.747	5.746	0.000	5.746	33.845	3.556	26.393
2015	6.284	0.000	0.723	0.723	5.562	0.000	5.562	39.407	3.129	29.522
2016	6.082	0.000	0.699	0.699	5.383	0.000	5.383	44.790	2.753	32.275
2017	5.887	0.000	0.677	0.677	5.210	0.000	5.210	50.000	2.422	34.697
2018	5.698	0.000	0.655	0.655	5.042	0.000	5.042	55.042	2.131	36.828
2019	5.514	0.000	0.634	0.634	4.880	0.000	4.880	59.923	1.875	38.703
2020	5.337	0.000	0.614	0.614	4.723	0.000	4.723	64.646	1.650	40.353
2021	5.166	0.000	0.594	0.594	4.572	0.000	4.572	69.218	1.452	41.804
2022	5.000	0.000	0.575	0.575	4.425	0.000	4.425	73.642	1.277	43.082
2023	4.839	0.000	0.556	0.556	4.282	0.000	4.282	77.925	1.124	44.205
SUBTOTAL	88.051	0.000	10.126	10.126	77.925	0.000	77.925	77.925	44.205	44.205
REMAINING	62.005	0.000	7.131	7.131	54.874	0.000	54.874	132.799	6.737	50.942
TOT 39.4Yr	150.056	0.000	17.256	17.256	132.799	0.000	132.799	132.799	50.942	50.942

Production Hub Pages

drillinginfo

Field
PANHANDLE, WEST

Lease Name
SUPPES

Operator
BP AMERICA PRODUCTION COMPANY

Gas ID Number
25631

Location
District: 10; Moore County, Texas

Cumulative (since 1970)
6,595 MMCF

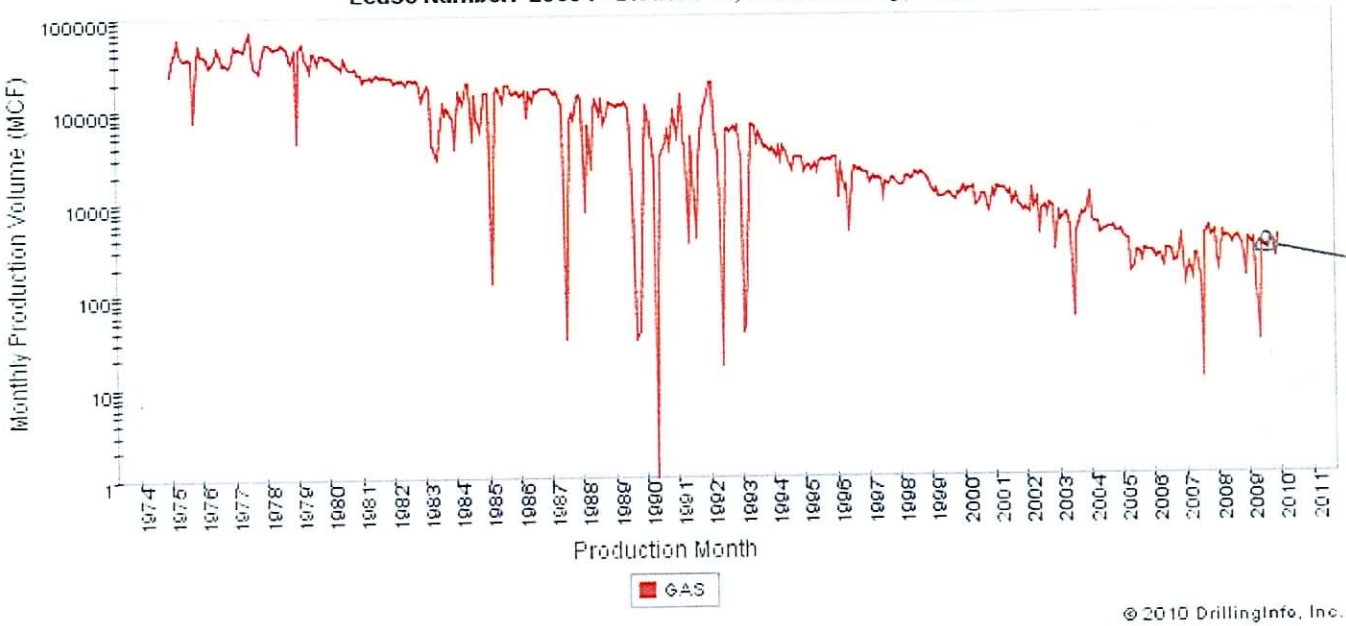
Wells
42-341-80979(1)

See Production Chart - BETA Version

Gas Production

Monthly Production Volume (Logarithmic) vs. Time

Lease Number: 25631 - District: 10; Moore County, Texas



DrillingInfo One-Page Production Summary

drillinginfo

Tag This Element

API#	42-341-80979
Well#	1
Lease	SUPPES
Field	PANHANDLE, WEST
Lease Operator	BP AMERICA PRODUCTION COMPANY Well Op History
County	Moore
State	Texas
Location	0.0 null / 0.0 null, H&TC RR CO A-22 Block:44 Section:283
Elevation	---
Date Spud	--
Date TD	--
Logs Run	

Prod.	First Production	Most Recent Production	Cumulative (MCF & BBL)	Gravity (SG & API)	Gatherer
Oil	1/1/61	12/1/09	0	---	
Gas	1/1/61	12/1/09	6,594,876	0.00	BPAPC

Most Recently Reported Monthly Production (12 Months)

Mo/Yr	Gas (MCF)				Oil (BBL)				Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)
	Produced	Sold	Used	Other	Produced	Sold	Other	Closing						
1/2009	353	353	0	0	0	---	---	0	---	---	---	11.39	0.00	0.00
2/2009	307	307	0	0	0	---	---	0	---	---	---	10.96	0.00	0.00
3/2009	328	328	0	0	0	---	---	0	---	---	---	10.58	0.00	0.00
4/2009	110	110	0	0	0	---	---	0	---	---	---	3.67	0.00	0.00
5/2009	27	27	0	0	0	---	---	0	---	---	---	0.87	0.00	0.00
6/2009	321	321	0	0	0	---	---	0	---	---	---	10.70	0.00	0.00
7/2009	286	286	0	0	0	---	---	0	---	---	---	9.23	0.00	0.00
8/2009	258	258	0	0	0	---	---	0	---	---	---	8.32	0.00	0.00
9/2009	335	335	0	0	0	---	---	0	---	---	---	11.17	0.00	0.00
10/2009	327	327	0	0	0	---	---	0	---	---	---	10.55	0.00	0.00
11/2009	229	229	0	0	0	---	---	0	---	---	---	7.63	0.00	0.00
12/2009	364	---	---	---	0	---	---	0	---	---	---	11.74	0.00	0.00
Totals	3,245	2,881	0	0	0	---	---	---	---	---	---	---	---	---

Annual Production

Year	Gas (MCF)	Oil (BBL)	Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)	Annual Dec. Gas	Annual Dec. Oil
1970	442,730	0	---	---	---	1,213.62	0.00	0.00	---	---
1971	371,919	0	---	---	---	1,019.51	0.00	0.00	16.0%	---
1972	476,566	0	---	---	---	1,306.38	0.00	0.00	---	---
1973	410,003	0	---	---	---	1,123.91	0.00	0.00	14.0%	---
1974	409,586	0	---	---	---	1,122.77	0.00	0.00	0.1%	---
1975	434,640	0	---	---	---	1,191.45	0.00	0.00	---	---
1976	416,074	0	---	---	---	1,140.55	0.00	0.00	4.3%	---
1977	507,208	0	---	---	---	1,390.37	0.00	0.00	---	---
1978	545,317	0	---	---	---	1,494.84	0.00	0.00	---	---
1979	414,127	0	---	---	---	1,135.22	0.00	0.00	24.1%	---
1980	353,892	0	---	---	---	970.10	0.00	0.00	14.5%	---
1981	264,040	0	---	---	---	723.79	0.00	0.00	25.4%	---
1982	234,289	0	---	---	---	642.24	0.00	0.00	11.3%	---
1983	110,126	0	---	---	---	301.88	0.00	0.00	53.0%	---
1984	135,396	0	---	---	---	371.15	0.00	0.00	---	---

1985	153,568	0	---	---	---	420.96	0.00	0.00	---	---
1986	172,253	0	---	---	---	472.18	0.00	0.00	---	---
1987	120,038	0	---	---	---	329.05	0.00	0.00	30.3%	---
1988	102,647	0	---	---	---	281.38	0.00	0.00	14.5%	---
1989	70,811	0	---	---	---	194.11	0.00	0.00	31.0%	---
1990	59,126	0	---	---	---	162.08	0.00	0.00	16.5%	---
1991	64,026	0	---	---	---	175.51	0.00	0.00	---	---
1992	81,923	0	---	---	---	224.57	0.00	0.00	---	---
1993	41,487	0	---	---	---	113.73	0.00	0.00	49.4%	---
1994	35,966	0	---	---	---	98.59	0.00	0.00	13.3%	---
1995	29,460	0	---	---	---	80.76	0.00	0.00	18.1%	---
1996	21,372	0	---	---	---	58.59	0.00	0.00	27.5%	---
1997	18,753	0	---	---	---	51.41	0.00	0.00	12.3%	---
1998	20,337	0	---	---	---	55.75	0.00	0.00	---	---
1999	13,546	0	---	---	---	37.13	0.00	0.00	33.4%	---
2000	13,056	0	---	---	---	35.79	0.00	0.00	3.6%	---
2001	12,803	0	---	---	---	35.10	0.00	0.00	1.9%	---
2002	9,068	0	---	---	---	24.86	0.00	0.00	29.2%	---
2003	6,532	0	---	---	---	17.91	0.00	0.00	28.0%	---
2004	6,206	0	---	---	---	17.01	0.00	0.00	5.0%	---
2005	3,347	0	---	---	---	9.17	0.00	0.00	46.1%	---
2006	2,979	0	---	---	---	8.17	0.00	0.00	11.0%	---
2007	2,808	0	---	---	---	7.70	0.00	0.00	5.7%	---
2008	3,606	0	---	---	---	9.88	0.00	0.00	---	---
2009	3,245	0	---	---	---	8.90	0.00	0.00	10.0%	---
Totals	6,594,876	0	---	---	---	---	---	---	---	---

Back

Price Data Hub Page

Lease Information

Lease Name: SUPPES LeaseID or GasID: 25631, Texas
Operator: BP AMERICA PRODUCTION COMPANY (4079840798) Additional Comptroller Info
Address: ATTN LOU BARRY P O BOX 3092 HOUSTON, TX 77253
Phone: 281-366-7816 Fax:
Gas Gatherer: (BPAPC) BP AMERICA PRODUCTION COMPANY
Address: ATTN LOU BARRY P O BOX 3092 HOUSTON, TX 77253
Phone: 281-366-7816
Cumulative Production: 0 BBL, 6,594,876 MCF Most Recent Production: 12/2009: 0 BBL/Day, 11.7 MCF/Day

Product Price Data

Gas Sales

Prod Date	Taxpayer Name	Other Party	Gross MCF	Gross $	Gross $/MCF	Mkt Cost	Commodity
10/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	327	1,976	6.043	0	raw gas
09/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	335	1,186	3.539	0	raw gas
08/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	258	1,482	5.744	0	raw gas
07/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	286	1,438	5.027	0	raw gas
06/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	321	1,846	5.751	0	raw gas
05/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	27	121	4.473	0	raw gas
04/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	110	425	3.867	0	raw gas
03/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	328	1,229	3.746	0	raw gas
02/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	307	1,313	4.278	0	raw gas
01/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	353	1,918	5.435	0	raw gas
12/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	135	704	5.216	0	raw gas
11/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	296	1,471	4.97	0	raw gas
10/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	320	2,055	6.423	0	raw gas
09/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	373	3,489	9.354	0	raw gas
08/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	349	4,551	13.04	0	raw gas
07/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	295	4,737	16.059	0	raw gas
06/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	346	4,852	14.024	0	raw gas
05/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	365	4,653	12.749	0	raw gas
04/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	349	3,985	11.419	0	raw gas
03/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	395	4,251	10.762	0	raw gas
02/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	165	1,824	11.055	0	raw gas
01/2008	BP AMERICA PRODUCTION	BP AMERICA	218	2,309	10.592	0	residue

Production Hub Pages

drillinginfo

Field
PANHANDLE, WEST

Lease Name
SUPPES

Operator
BP AMERICA PRODUCTION COMPANY

Gas ID Number
25632

Wells
42-341-80980(2)

Location
District: 10; Moore County, Texas

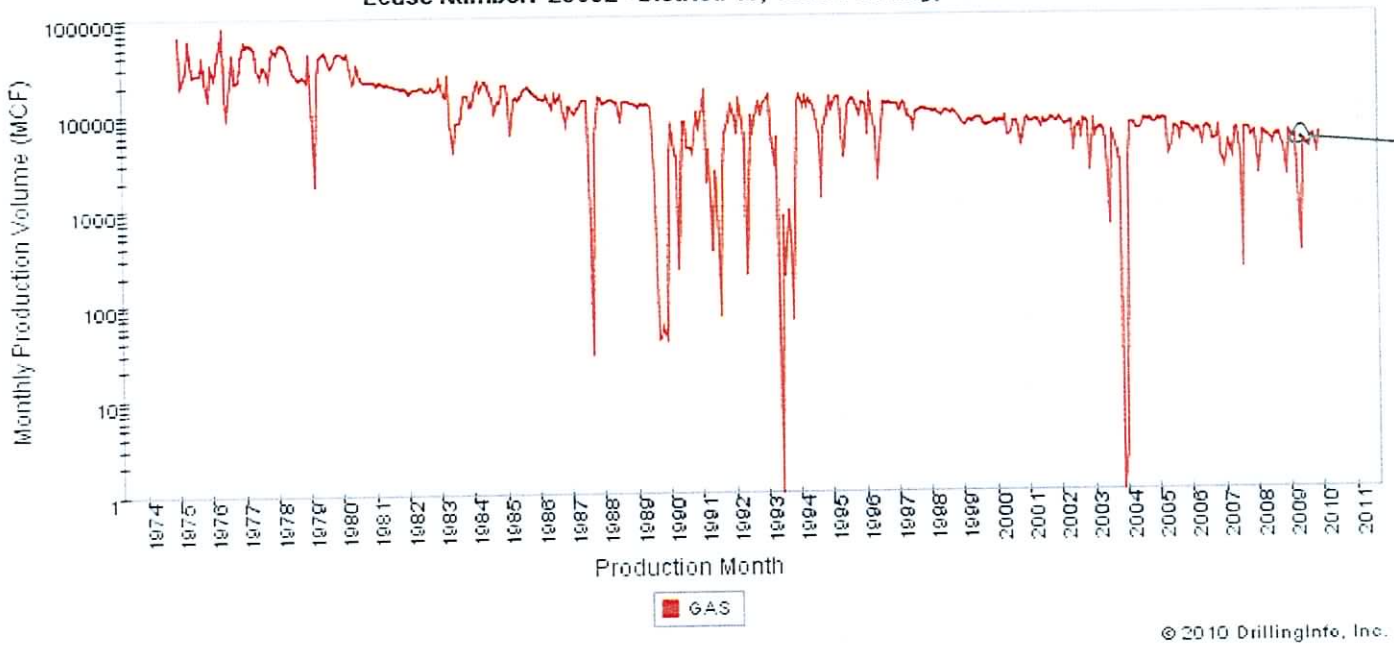
Cumulative (since 1970)
7,206 MMCF

See Production Chart - BETA Version

Gas Production

Monthly Production Volume (Logarithmic) vs. Time

Lease Number: 25632 - District: 10; Moore County, Texas



DrillingInfo One-Page Production Summary

drillinginfo

Tag This Element

API#	42-341-80980
Well#	2
Lease	SUPPES
Field	PANHANDLE, WEST
Lease Operator	BP AMERICA PRODUCTION COMPANY Well Op History
County	Moore
State	Texas
Location	0.0 null / 0.0 null, H&TC RR CO A-22 Block:44 Section:283
Elevation	---
Date Spud	--
Date TD	--
Logs Run	

Prod.	First Production	Most Recent Production	Cumulative (MCF & BBL)	Gravity (SG & API)	Gatherer
Oil	1/1/61	12/1/09	0	---	
Gas	1/1/61	12/1/09	7,205,699	0.00	BPAPC

Most Recently Reported Monthly Production (12 Months)

Mo/Yr	Gas (MCF)				Oil (BBL)				Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)
	Produced	Sold	Used	Other	Produced	Sold	Other	Closing						
1/2009	5,575	5,575	0	0	0	---	---	0	---	---	---	179.84	0.00	0.00
2/2009	4,826	4,826	0	0	0	---	---	0	---	---	---	172.36	0.00	0.00
3/2009	5,077	5,077	0	0	0	---	---	0	---	---	---	163.77	0.00	0.00
4/2009	1,657	1,657	0	0	0	---	---	0	---	---	---	55.23	0.00	0.00
5/2009	314	314	0	0	0	---	---	0	---	---	---	10.13	0.00	0.00
6/2009	4,656	4,656	0	0	0	---	---	0	---	---	---	155.20	0.00	0.00
7/2009	4,389	4,389	0	0	0	---	---	0	---	---	---	141.58	0.00	0.00
8/2009	3,895	3,895	0	0	0	---	---	0	---	---	---	125.65	0.00	0.00
9/2009	4,984	4,984	0	0	0	---	---	0	---	---	---	166.13	0.00	0.00
10/2009	5,109	5,109	0	0	0	---	---	0	---	---	---	164.81	0.00	0.00
11/2009	3,463	3,463	0	0	0	---	---	0	---	---	---	115.43	0.00	0.00
12/2009	5,455	---	---	---	0	---	---	0	---	---	---	175.97	0.00	0.00
Totals	49,400	43,945	0	0	0	---	---	---	---	---	---	---	---	---

Annual Production

Year	Gas (MCF)	Oil (BBL)	Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)	Annual Dec. Gas	Annual Dec. Oil
1970	326,546	0	---	---	---	895.14	0.00	0.00	---	---
1971	338,944	0	---	---	---	929.12	0.00	0.00	---	---
1972	317,799	0	---	---	---	871.16	0.00	0.00	6.2%	---
1973	363,801	0	---	---	---	997.26	0.00	0.00	---	---
1974	352,793	0	---	---	---	967.09	0.00	0.00	3.0%	---
1975	365,633	0	---	---	---	1,002.28	0.00	0.00	---	---
1976	375,047	0	---	---	---	1,028.09	0.00	0.00	---	---
1977	486,255	0	---	---	---	1,332.94	0.00	0.00	---	---
1978	425,177	0	---	---	---	1,165.51	0.00	0.00	12.6%	---
1979	394,432	0	---	---	---	1,081.23	0.00	0.00	7.2%	---
1980	340,030	0	---	---	---	932.10	0.00	0.00	13.8%	---
1981	237,193	0	---	---	---	650.20	0.00	0.00	30.2%	---
1982	210,833	0	---	---	---	577.94	0.00	0.00	11.1%	---
1983	159,768	0	---	---	---	437.96	0.00	0.00	24.2%	---

1984	199,981	0	---	---	---	548.19	0.00	0.00	---	---
1985	180,925	0	---	---	---	495.96	0.00	0.00	9.5%	---
1986	154,901	0	---	---	---	424.62	0.00	0.00	14.4%	---
1987	117,843	0	---	---	---	323.03	0.00	0.00	23.9%	---
1988	147,737	0	---	---	---	404.98	0.00	0.00	---	---
1989	76,522	0	---	---	---	209.76	0.00	0.00	48.2%	---
1990	61,081	0	---	---	---	167.44	0.00	0.00	20.2%	---
1991	61,948	0	---	---	---	169.81	0.00	0.00	---	---
1992	97,132	0	---	---	---	266.26	0.00	0.00	---	---
1993	57,036	0	---	---	---	156.35	0.00	0.00	41.3%	---
1994	120,024	0	---	---	---	329.01	0.00	0.00	---	---
1995	129,424	0	---	---	---	354.78	0.00	0.00	---	---
1996	112,233	0	---	---	---	307.66	0.00	0.00	13.3%	---
1997	118,703	0	---	---	---	325.39	0.00	0.00	---	---
1998	112,927	0	---	---	---	309.56	0.00	0.00	4.9%	---
1999	90,459	0	---	---	---	247.97	0.00	0.00	19.9%	---
2000	82,776	0	---	---	---	226.91	0.00	0.00	8.5%	---
2001	91,969	0	---	---	---	252.11	0.00	0.00	---	---
2002	76,578	0	---	---	---	209.92	0.00	0.00	16.7%	---
2003	52,370	0	---	---	---	143.56	0.00	0.00	31.6%	---
2004	73,833	0	---	---	---	202.39	0.00	0.00	---	---
2005	75,633	0	---	---	---	207.33	0.00	0.00	---	---
2006	66,267	0	---	---	---	181.65	0.00	0.00	12.4%	---
2007	51,834	0	---	---	---	142.09	0.00	0.00	21.8%	---
2008	51,912	0	---	---	---	142.30	0.00	0.00	---	---
2009	49,400	0	---	---	---	135.42	0.00	0.00	4.8%	---
Totals	7,205,699	0	---	---	---	---	---	---	---	---

Back

Price Data Hub Page

drillinginfo

Lease Information

Lease Name: SUPPES LeaseID or GasID: 25632, Texas
Operator: BP AMERICA PRODUCTION COMPANY (4079840798) Additional Comptroller Info
Address: ATTN LOU BARRY P O BOX 3092 HOUSTON, TX 77253
Phone: 281-366-7816 Fax:
Gas Gatherer: (BPAPC) BP AMERICA PRODUCTION COMPANY
Address: ATTN LOU BARRY P O BOX 3092 HOUSTON, TX 77253
Phone: 281-366-7816
Cumulative Production: 0 BBL, 7,205,699 MCF Most Recent Production: 12/2009: 0 BBL/Day, 176 MCF/Day

Product Price Data

Gas Sales

Prod Date	Taxpayer Name	Other Party	Gross MCF	Gross $	Gross $/MCF	Mkt Cost	Commodity
10/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,109	33,107	6.48	0	raw gas
09/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,984	17,812	3.574	0	raw gas
08/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	3,895	22,962	5.895	0	raw gas
07/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,389	22,823	5.2	0	raw gas
06/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,656	28,158	6.048	0	raw gas
05/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	314	1,469	4.679	0	raw gas
04/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	1,657	6,703	4.045	0	raw gas
03/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,077	20,134	3.966	0	raw gas
02/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,826	21,652	4.487	0	raw gas
01/2009	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,575	30,921	5.546	0	raw gas
12/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	1,989	10,612	5.335	0	raw gas
11/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	3,996	20,833	5.213	0	raw gas
10/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,501	30,588	6.796	0	raw gas
09/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,415	52,401	9.677	0	raw gas
08/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,052	68,444	13.548	0	raw gas
07/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,243	70,385	16.589	0	raw gas
06/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	4,925	72,107	14.641	0	raw gas
05/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,123	71,284	13.915	0	raw gas
04/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,298	66,081	12.473	0	raw gas
03/2008	BP AMERICA PRODUCTION COMPANY (Producer),M	BP AMERICA PRODUCTION COMPANY	5,747	67,500	11.745	0	raw gas
02/2008	BP AMERICA PRODUCTION	BP AMERICA	2,102	25,249	12.012	0	raw gas

DEFINITION OF TERMS AND ABBREVIATIONS

AFIT – After Federal Income Tax

BFIT – Before Federal Income Tax

Casinghead Gas – Gas that is contained within the oil in solution and liberated at the surface under atmospheric conditions by natural means (see Solution Gas)

Condensate – Liquid hydrocarbons expressed in stock tank barrels recovered from a gas rich in heavy hydrocarbon components

Gas-in-Place – The volume of gas in the formation

GOR – The ratio of produced gas to produced oil expressed as cubic feet of gas per barrel of oil

Gross – The total or 100% of the production or generated revenues of a property

MCF – Thousand cubic feet of gas

MMCF – Million cubic feet of gas

Net – Fraction of the production or generated revenues evaluated

Net BFIT Discounted Cash Flow – Discounted future cash flows back to time zero (see Present Worth)

Oil-in-Place – The volume of oil in the formation

Present Worth – Discounted future cash flows back to time zero

Pressure Decline Curve – Plot of shutin bottomhole pressure divided by the gas compressibility factor versus cumulative production

Solution Gas – Gas that is contained within the oil in solution and liberated at the surface under atmospheric conditions by natural means

Remaining Recoverable Reserve – The amount of hydrocarbons that are expected to be recovered from the producing formation(s) as of a specified date

STB – Stock Tank Barrels – Volume of 1 barrel of oil at surface pressure and temperature

Yield – The ratio of produced condensate expressed as STB of oil per MMCF of produced gas

WELLS AND DRILLING DEFINITIONS

WELL

A well is hole drilled in the earth for the purpose of (1) finding or producing crude oil or natural gas or (2) providing services related to the production of crude oil or natural gas.

Wells are classified as (1) oil wells; (2) gas wells; (3) dry holes; (4) stratigraphic tests or (5) service wells.

Oil wells, gas wells and dry holes are classified as exploratory wells or development wells. Exploratory wells are subclassified as (1) new-field wildcats; (2) new-pool wildcats; (3) deeper-pool tests; (4) shallower-pool tests and (5) outpost (extension) tests. Well classifications reflect the status of wells after drilling has been completed.

Total reported wells in the various categories include old wells drilled deeper, but do not include old wells worked over or water wells drilled to support exploratory or development drilling operations.

COMPLETION

The term "completion" refers to the installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a "well" (classified as an oil well or gas well) and the definition of a "completion" are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a "well" is not synonymous with a "completion."

COMPLETION DATE

The date of completion of an oil well or a gas well is the date on which the installation of permanent equipment has been completed (for the production of oil or gas) as reported to the appropriate regulatory agency.

The date of completion of a dry hole is the date of abandonment as reported to the appropriate agency.

The date of completion of a service well is the date on which the well is equipped to perform the service for which it was intended.

OIL WELL

An oil well is a well completed for the production of crude oil from at least one oil zone or reservoir.

GAS WELL

A gas well is a well completed for the production of natural gas from one or more gas zones or reservoirs. Such wells contain no completions for the production of crude oil.

MULTIPLE COMPLETION WELL

A multiple completion well is a well equipped to produce oil and/or gas separately from more than one reservoir. Such wells contain multiple strings of tubing or other equipment which permit production from the various completions to be measured and accounted for separately.

For statistical purposes, a multiple completion well is reported as one well and classified as either an oil well or a gas well. If one of the several completions in a given well is an oil completion, the well is classified as an oil well. If all of the completions of a given well are gas completions, the well is classified as a gas well.

DRY HOLE

A dry hole is an exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

STRATIGRAPHIC TEST

A stratigraphic test is a drilling effort, geologically directed, to obtain information pertaining to a specific geological condition that might lead toward the discovery of an accumulation of hydrocarbons. Such wells are customarily drilled without the intention of being completed for hydrocarbon production. This classification also includes tests identified as core tests and all types of expendable holes related to hydrocarbon exploration.

SERVICE WELL

A service well is a well drilled or completed for the purpose of supporting production in an existing field. Wells of this class are drilled for the following specific purposes:

1. Gas injection (natural gas, propane, butane or flue-gas)
2. Water injection
3. Steam injection
4. Air injection
5. Salt water disposal
6. Water supply for injection
7. Observation
8. Injection for in-situ combustion.

WATER WELL

A water well is a well drilled to (1) obtain a water supply to support drilling or plant operations or (2) obtain a water supply to be used in connection with an improved recovery program.

Water wells of the first type are not reported. Water wells drilled in connection with an improved recovery program are reported as service wells.

OLD WELL DRILLED DEEPER

An old well drilled deeper is a previously drilled hole which is reentered and deepened by additional drilling. Such wells are reported as (1) oil or gas wells if completed for the production of oil or gas or (2) dry holes if sufficient quantities of oil or gas are not found to justify completion at the greater depth.

OLD WELL WORKED OVER

An old well worked over is a previously drilled hole which is reentered for the purpose of improving or establishing production of oil or gas, but no additional footage is drilled. Such wells are not included in drilling statistics reported by the API.

DEVELOPMENT WELL

In general, a development well is a well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive. If the well is completed for production, it is classified as an oil or gas development well. If the well is not completed for production, it is classified as a dry development hole.[1]

EXPLORATORY WELL

An exploratory well is a well drilled (1) to find and produce oil or gas in an unproved area; (2) to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir or (3) to extend the limits of a known oil or gas reservoir. Exploratory wells include the following:

1. New-field wildcats
2. New-pool wildcats
3. Deeper-pool tests
4. Shallower-pool tests
5. Outpost (extension) tests

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[1] Wells drilled within the proved area of an oil or gas reservoir but drilled to depths of less than or more than the depths of stratigraphic horizons known to be productive are classified as dry exploratory holes if they are not completed for the production of oil or gas.

Wells drilled within the proved area of an oil or gas reservoir but drilled to depths less than or more than the depths of stratigraphic horizons known to be productive are classified as successful exploratory wells if they are completed for the production of oil or gas in a new reservoir.

NEW-FIELD WILDCAT

A new-field wildcat is a well located on a structural feature or other type of trap which has not previously produced oil or gas. In regions where local geological conditions have little or no control over accumulations, these wells are generally at least two miles from the nearest productive area. Distance, however, is not the determining factor. Of greater importance is the degree of risk assumed by the operator and his intention to test a structure or stratigraphic condition not previously proved productive.

NEW-POOL WILDCAT

A new-pool wildcat is a well located to explore for a new pool on a structural feature or other type of trap already producing oil or gas but outside the known limits of the presently producing area. In some regions where local geological conditions exert an almost negligible control, exploratory holes of this type may be called "near wildcats." Such wells will usually be less than two miles from the nearest productive area.

DEEPER-POOL TEST

A deeper-pool test is an exploratory hole located within the productive area of a pool, or pools, already partly or wholly developed. It is drilled below the deepest productive pool in order to explore for deeper unknown prospects.

SHALLOWER-POOL TEST

A shallower-pool test is an exploratory well drilled in search of a new productive reservoir, unknown but possibly suspected from data secured from other wells, and shallower than know productive pools. The test is located within the productive area of a pool or pools previously developed.

OUTPOST (EXTENSION) TEST

An outpost is a well located and drilled with the expectation of extending for a considerable distance the productive area of a partly developed pool. It is usually two or more locations distant from the nearest productive site.

DIRECTIONAL (DEVIATED) WELL

A directional (deviated) well is a well purposely deviated from the vertical using controlled angles to reach an objective location other than one directly below the surface location. A directional well may be the original hole or a directional "sidetrack" hole which deviates from the original bore at some point below the surface.[2]

[2] The new footage associated with directional "sidetrack" holes should not be confused with footage resulting from remedial SIDETRACK DRILLING.

If there is a common bore from which two or more wells are drilled, the first complete bore from the surface to the original objective is classified and reported as a well drilled. Each of the deviations from the common bore is reported as a separate well.

SIDETRACK DRILLING

Sidetrack drilling is a remedial operation which results in the creation of a new section of well bore for the purpose of (1) detouring around junk, (2) redrilling lost hole or (3) straightening key seats and crooked holes.

BYPASSED FOOTAGE

Bypassed footage is the footage in that section of hole which is abandoned as the result of remedial sidetrack drilling operations.

REDRILL FOOTAGE

Occasionally a hole is lost or junked and a second hole may be drilled from the surface in close proximity to the first. Footage drilled for the second hole is defined as "redrill footage." Under these circumstances, the first hole is reported as a dry hole (exploratory or developmental) and the total footage is reported as dry hole footage. The second hole is reported as an oil well, gas well or dry hole according to the result. The redrill footage is included in the appropriate classification of total footage but is not reported as a separate classification by the API.

DEEPEST TOTAL DEPTH

The deepest total depth of a given well is the distance from a surface reference point (usually the Kelly bushing) to the point of deepest penetration measured along the well bore. If a well is drilled from a platform or barge over water and the reference point is above water, the depth of the water is included in the total length of the well bore.

DEPTH OF DEEPEST PRODUCTION

The depth of deepest production is the length of the well bore measured (in feet) from the surface reference point to the bottom of the open hole or the deepest perforation in the casing of a producing well.

PLUGGED-BACK FOOTAGE

Under certain conditions, drilling operations may be continued to a greater depth than that at which a potentially productive formation is found. If production is not established at the greater depth, the well may be completed in the shallower formation. Except in special situations, the length of the well bore from the deepest depth at which the well is completed to the maximum depth drilled is defined as "plugged-back footage."

Plugged-back footage is included in total footage drilled but it is not reported separately by the API.

FOOTAGE DRILLED

Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells and (3) all new footage drilled for directional "sidetrack" wells.[2] In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

[2] The new footage associated with directional "sidetrack" holes should not be confused with footage resulting from remedial SIDETRACK DRILLING.

DEFINITION OF ECONOMIC PARAMETERS

PAYOUT

Payout is probably the simplest parameter to calculate after accumulating an estimated cash flow schedule. Payout can be defined as the length of time required for the total cash investment to be recovered by the net cash inflow generated by a project. The major shortcoming of payout is that it recognizes the period of time required to recoup the initial investment, but does not indicate the ultimate productivity of the cash inflow. It should be noted that the payout is based on undiscounted income.

NET CASH FLOW

Net cash flow is the actual profit gained by an investment. This is an absolute measure of the total profit gained. Net cash flow, however, does not consider the time element.

PROFIT/INVESTMENT RATIO (P/I UNDISC.)

This ratio is the total undiscounted net profit (net cash flow) generated by an investment divided by the original cost of the investment. This parameter provides a good means of comparing the worth of different projects for ranking purposes and for recognizing cash inflows beyond the time of payout.

The profit/investment ratio should not be confused with a "return on investment" or "number of times investment ratio (NTIR)," which does not account for recovery of the investment cost. For example, an NTIR of 1.0 would equal a profit/investment ratio of 0, or break-even. The NTIR is always 1.0 more than the P/I ratio.

DISCOUNTED PROFIT/INVESTMENT RATIO (P/I DISC.)

This ratio is defined as the present value profit at some discount rate divided by the cost of the investment. This parameter combines the advantages of the profit/investment ratio while recognizing the time value of money. A relatively "true" measure of profit is obtained if the discount rate represents either the current cost of capital or the current earning power of investment capital.

RATE OF RETURN

The rate of return, or discounted cash flow rate of return (sometimes called the investor's interest rate), is defined as the discount rate at which the present value of the cash inflow exactly equals the cost of the investment. Stated another way, the rate of return is the discount rate at which the discounted net cash flow is equal to zero. For example, if a project has a calculated rate of return of 30%, the future net cash flow discounted at 30% would equal zero.

Since the rate of return is based on the inherent assumption that reinvestment of funds at the rate of return is possible, it does not reveal a true picture of project return. However, it will give an indication of how a project will fare in comparison with some minimum acceptable rate of return. This parameter is essentially a measure of how rapidly profits are achieved and is very strongly influenced by high early year cash flows.

PETROLEUM RESERVES DEFINITIONS

Preamble

Petroleum[1] is the world's major source of energy and is a key factor in the continued development of world economies. It is essential for future planning that governments and industry have a clear assessment of the quantities of petroleum available for production and quantities which are anticipated to become available within a practical time frame through additional field development, technological advances, or exploration. To achieve such an assessment, it is imperative that the industry adopt a consistent nomenclature for assessing the current and future quantities of petroleum expected to be recovered from naturally occurring underground accumulations. Such quantities are defined as reserves, and their assessment is of considerable importance to governments, international agencies, economists, bankers, and the international energy industry.

The terminology used in classifying petroleum substances and the various categories of reserves have been the subject of much study and discussion for many years. Attempts to standardize reserves terminology began in the mid 1930's when the American Petroleum Institute considered classification for petroleum and definitions of various reserves categories. Since then, the evolution of technology has yielded more precise engineering methods to determine reserves and has intensified the need for an improved nomenclature to achieve consistency among professionals working with reserves terminology. Working entirely separately, the Society of Petroleum Engineers (SPE) and the World Petroleum Congresses (WPC) produced strikingly similar sets of petroleum reserve definitions for known accumulations which were introduced in early 1987. These have become the preferred standards for reserves classification across the industry. Soon after, it became apparent to both organizations that these could be combined into a single set of definitions which could be used by the industry worldwide. Contacts between representatives of the two organizations started in 1987, shortly after the publication of the initial sets of definitions. During the World Petroleum Congress in June 1994, it was recognized that while any revisions to the current definitions would require the approval of the respective Boards of Directors, the effort to establish a worldwide nomenclature should be increased. A common nomenclature would present an enhanced opportunity for acceptance and would signify a common and unique stance on an essential technical and professional issue facing the international petroleum industry.

As a first step in the process, the organizations issued a joint statement which presented a broad set of principles on which reserves estimations and definitions should be based. A task force was established by the Boards of SPE and WPC to develop a common set of definitions based on this statement of principles. The following joint statement of principles was published in the January 1996 issue of the SPE Journal of Petroleum Technology and in the June 1996 issue of the WPC Newsletter:

There is a growing awareness worldwide of the need for a consistent set of reserves definitions for use by governments and industry in the classification of petroleum reserves. Since their introduction in 1987, the Society of Petroleum Engineers and the World Petroleum Congresses reserves definitions have been standards for reserves classification and evaluation worldwide.

SPE and WPC have begun efforts toward achieving consistency in the classification of reserves. As a first step in this process, SPE and WPC issue the following joint statement of principles.

> *SPE and WPC recognize that both organizations have developed a widely accepted and simple nomenclature of petroleum reserves.*
>
> *SPE and WPC emphasize that the definitions are intended as standard, general guidelines for petroleum reserves classification which should allow for the proper comparison of quantities on a worldwide basis.*
>
> *SPE and WPC emphasize that, although the definition of petroleum reserves should not in any manner be construed to be compulsory or obligatory, countries and organizations should be encouraged to use the core definitions as defined in these principles and also to expand on these definitions according to special local conditions and circumstances.*
>
> *SPE and WPC recognize that suitable mathematical techniques can be used as required and that it is left to the country to fix the exact criteria for reasonable certainty of existence of petroleum reserves. No methods of calculation are excluded, however, if probabilistic methods are used, the chosen percentages should be unequivocally stated.*
>
> *SPE and WPC agree that the petroleum nomenclature as proposed applies only to known discovered hydrocarbon accumulations and their associated potential deposits.*
>
> *SPE and WPC stress that petroleum proved reserves should be based on current economic conditions, including all factors affecting the viability of the projects. SPE and WPC recognize that the term is general and not restricted to costs and price only. Probable and possible reserves could be based on anticipated developments and/or the extrapolation of current economic conditions.*
>
> *SPE and WPC accept that petroleum reserves definitions are not static and will evolve.*

A conscious effort was made to keep the recommended terminology as close to current common usage as possible in order to minimize the impact of previously reported quantities and changes required to bring about wide acceptance. The proposed terminology is not intended as a precise system of definitions and evaluation procedures to satisfy all situations. Due to the many forms of occurrence of petroleum, the wide range of characteristics, the uncertainty associated with the geological environment, and the constant evolution of evaluation technologies, a precise classification system is not practical. Furthermore, the complexity required for a precise system would detract from its understanding by those involved in petroleum matters. As a result, the recommended definitions do not represent a major change from the current SPE and WPC definitions which have become the standards across the industry. It is hoped that the recommended terminology will integrate the two sets of definitions and achieve better consistency in reserves data across the international industry.

Reserves derived under these definitions rely on the integrity, skill, and judgment of the evaluator and are affected by the geological complexity, stage of development, degree of depletion of the reservoirs, and amount of available data. Use of these definitions should sharpen the distinction between the various classifications and provide more consistent reserves reporting.

Definitions

Reserves are those quantities of petroleum which are anticipated to be commercially recovered from known accumulations from a given date forward. All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further sub-classified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability.

The intent of SPE and WPC in approving additional classifications beyond proved reserves is to facilitate consistency among professionals using such terms. In presenting these definitions, neither organization is recommending public disclosure of reserves classified as unproved. Public disclosure of the quantities classified as unproved reserves is left to the discretion of the countries or companies involved.

Estimation of reserves is done under conditions of uncertainty. The method of estimation is called deterministic if a single best estimate of reserves is made based on known geological, engineering, and economic data. The method of estimation is called probabilistic when the known geological, engineering, and economic data are used to generate a range of estimates and their associated probabilities. Identifying reserves as proved, probable, and possible has been the most frequent classification method and gives an indication of the probability of recovery. Because of potential differences in uncertainty, caution should be exercised when aggregating reserves of different classifications.

Reserves estimates will generally be revised as additional geologic or engineering data becomes available or as economic conditions change. Reserves do not include quantities of petroleum being held in inventory, and may be reduced for usage or processing losses if required for financial reporting.

Reserves may be attributed to either natural energy or improved recovery methods. Improved recovery methods include all methods for supplementing natural energy or altering natural forces in the reservoir to increase ultimate recovery. Examples of such methods are pressure maintenance, cycling, waterflooding, thermal methods, chemical flooding, and the use of miscible and immiscible displacement fluids. Other improved recovery methods may be developed in the future as petroleum technology continues to evolve.

Proved Reserves

Proved reserves are those quantities of petroleum which, by analysis of geological and engineering data, can be estimated with reasonable certainty to be commercially recoverable,

from a given date forward, from known reservoirs and under current economic conditions, operating methods, and government regulations. Proved reserves can be categorized as developed or undeveloped.

If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

Establishment of current economic conditions should include relevant historical petroleum prices and associated costs and may involve an averaging period that is consistent with the purpose of the reserve estimate, appropriate contract obligations, corporate procedures, and government regulations involved in reporting these reserves.

In general, reserves are considered proved if the commercial producibility of the reservoir is supported by actual production or formation tests. In this context, the term proved refers to the actual quantities of petroleum reserves and not just the productivity of the well or reservoir. In certain cases, proved reserves may be assigned on the basis of well logs and/or core analysis that indicate the subject reservoir is hydrocarbon bearing and is analogous to reservoirs in the same area that are producing or have demonstrated the ability to produce on formation tests.

The area of the reservoir considered as proved includes (1) the area delineated by drilling and defined by fluid contacts, if any, and (2) the undrilled portions of the reservoir that can reasonably be judged as commercially productive on the basis of available geological and engineering data. In the absence of data on fluid contacts, the lowest known occurrence of hydrocarbons controls the proved limit unless otherwise indicated by definitive geological, engineering or performance data.

Reserves may be classified as proved if facilities to process and transport those reserves to market are operational at the time of the estimate or there is a reasonable expectation that such facilities will be installed. Reserves in undeveloped locations may be classified as proved undeveloped provided (1) the locations are direct offsets to wells that have indicated commercial production in the objective formation, (2) it is reasonably certain such locations are within the known proved productive limits of the objective formation, (3) the locations conform to existing well spacing regulations where applicable, and (4) it is reasonably certain the locations will be developed. Reserves from other locations are categorized as proved undeveloped only where interpretations of geological and engineering data from wells indicate with reasonable certainty that the objective formation is laterally continuous and contains commercially recoverable petroleum at locations beyond direct offsets.

Reserves which are to be produced through the application of established improved recovery methods are included in the proved classification when (1) successful testing by a pilot project or favorable response of an installed program in the same or an analogous reservoir with similar rock and fluid properties provides support for the analysis on which the project was based, and, (2) it is reasonably certain that the project will proceed. Reserves to be recovered by improved recovery methods that have yet to be established through commercially successful applications are included in the proved classification only (1) after a favorable production response from the subject reservoir from either (a) a representative pilot or (b) an installed program where the

response provides support for the analysis on which the project is based and (2) it is reasonably certain the project will proceed.

Unproved Reserves

Unproved reserves are based on geologic and/or engineering data similar to that used in estimates of proved reserves; but technical, contractual, economic, or regulatory uncertainties preclude such reserves being classified as proved. Unproved reserves may be further classified as probable reserves and possible reserves.

Unproved reserves may be estimated assuming future economic conditions different from those prevailing at the time of the estimate. The effect of possible future improvements in economic conditions and technological developments can be expressed by allocating appropriate quantities of reserves to the probable and possible classifications.

Probable Reserves

Probable reserves are those unproved reserves which analysis of geological and engineering data suggests are more likely than not to be recoverable. In this context, when probabilistic methods are used, there should be at least a 50% probability that the quantities actually recovered will equal or exceed the sum of estimated proved plus probable reserves.

In general, probable reserves may include (1) reserves anticipated to be proved by normal step-out drilling where sub-surface control is inadequate to classify these reserves as proved, (2) reserves in formations that appear to be productive based on well log characteristics but lack core data or definitive tests and which are not analogous to producing or proved reservoirs in the area, (3) incremental reserves attributable to infill drilling that could have been classified as proved if closer statutory spacing had been approved at the time of the estimate, (4) reserves attributable to improved recovery methods that have been established by repeated commercially successful applications when (a) a project or pilot is planned but not in operation and (b) rock, fluid, and reservoir characteristics appear favorable for commercial application, (5) reserves in an area of the formation that appears to be separated from the proved area by faulting and the geologic interpretation indicates the subject area is structurally higher than the proved area, (6) reserves attributable to a future workover, treatment, re-treatment, change of equipment, or other mechanical procedures, where such procedure has not been proved successful in wells which exhibit similar behavior in analogous reservoirs, and (7) incremental reserves in proved reservoirs where an alternative interpretation of performance or volumetric data indicates more reserves than can be classified as proved.

Possible Reserves

Possible reserves are those unproved reserves which analysis of geological and engineering data suggests are less likely to be recoverable than probable reserves. In this context, when probabilistic methods are used, there should be at least a 10% probability that the quantities actually recovered will equal or exceed the sum of estimated proved plus probable plus possible reserves.

In general, possible reserves may include (1) reserves which, based on geological interpretations, could possibly exist beyond areas classified as probable, (2) reserves in formations that appear to be petroleum bearing based on log and core analysis but may not be productive at commercial rates, (3) incremental reserves attributed to infill drilling that are subject to technical uncertainty, (4) reserves attributed to improved recovery methods when (a) a project or pilot is planned but not in operation and (b) rock, fluid, and reservoir characteristics are such that a reasonable doubt exists that the project will be commercial, and (5) reserves in an area of the formation that appears to be separated from the proved area by faulting and geological interpretation indicates the subject area is structurally lower than the proved area.

Reserve Status Categories

Reserve status categories define the development and producing status of wells and reservoirs.

Developed: Developed reserves are expected to be recovered from existing wells including reserves behind pipe. Improved recovery reserves are considered developed only after the necessary equipment has been installed, or when the costs to do so are relatively minor. Developed reserves may be sub-categorized as producing or non-producing.

> ***Producing:*** Reserves subcategorized as producing are expected to be recovered from completion intervals which are open and producing at the time of the estimate. Improved recovery reserves are considered producing only after the improved recovery project is in operation.
>
> ***Non-producing:*** Reserves subcategorized as non-producing include shut-in and behind-pipe reserves. Shut-in reserves are expected to be recovered from (1) completion intervals which are open at the time of the estimate but which have not started producing, (2) wells which were shut-in for market conditions or pipeline connections, or (3) wells not capable of production for mechanical reasons. Behind-pipe reserves are expected to be recovered from zones in existing wells, which will require additional completion work or future recompletion prior to the start of production.

Undeveloped Reserves: Undeveloped reserves are expected to be recovered: (1) from new wells on undrilled acreage, (2) from deepening existing wells to a different reservoir, or (3) where a relatively large expenditure is required to (a) recomplete an existing well or (b) install production or transportation facilities for primary or improved recovery projects.

Approved by the Board of Directors, Society of Petroleum Engineers (SPE) Inc., and the Executive Board, World Petroleum Congresses (WPC), March 1997.

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[1] **Petroleum:** For the purpose of these definitions, the term petroleum refers to naturally occurring liquids and gases which are predominately comprised of hydrocarbon compounds. Petroleum may also contain non-hydrocarbon compounds in which sulfur, oxygen, and/or nitrogen atoms are combined with carbon and hydrogen. Common examples of non-hydrocarbons found in petroleum are nitrogen, carbon dioxide, and hydrogen sulfide.