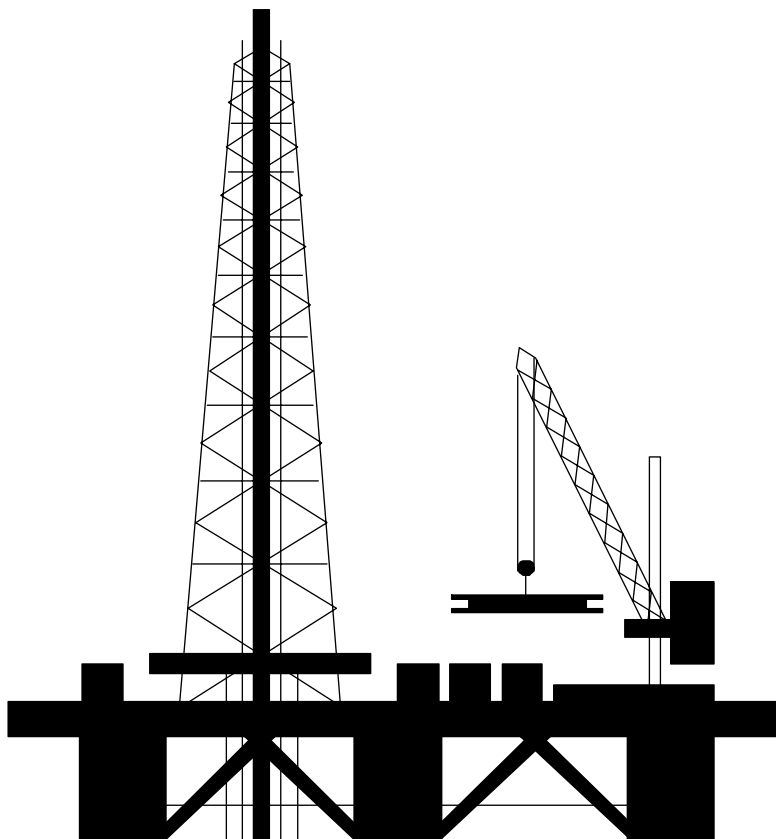


Central Gulf of Mexico Sale 190 March 17, 2004

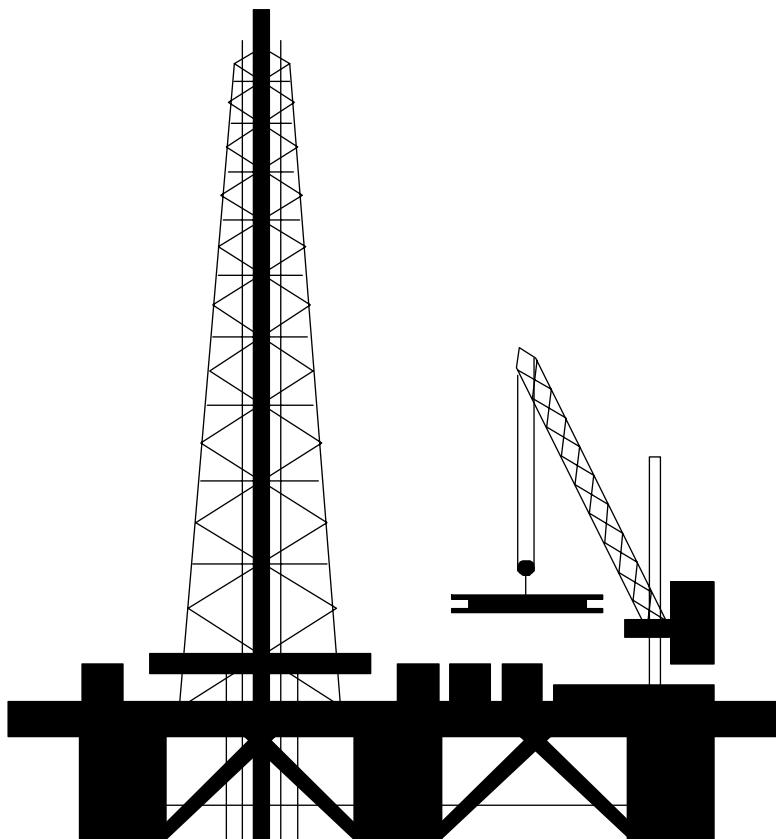
Sale Summary, Bidding Results and
Related Analyses



Central Gulf of Mexico Sale 190 March 17, 2004

Sale Summary, Bidding Results and
Related Analyses

By
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Central Gulf of Mexico

Sale 190 March 17, 2004

Sale Overview

Sale 190 is the fourth sale in the Central Gulf of Mexico (CGOM) planning area in which the sale's royalty suspension volumes and water depth categories were specified in the notice of lease sale. In this sale, 557 tracts received 829 bids (an average of 1.49 bids per tract). Tracts located in water depths eligible for deepwater royalty relief received 266 bids, while those tracts in water depths eligible for shallow water, deep gas royalty relief received 523 bids.

Bidding Results

Sale 190 was about the same size as CGOM Sale 185 held in 2003 in terms of the number of tracts receiving bids (557 tracts v. 561 tracts). However, there was an increase of about 17 percent in aggregate high bids in Sale 190 compared to Sale 185. In Sale 190, 557 tracts received 829 bids with high bids totaling \$368,763,482.

Table 1 summarizes bidding results by water depth zone. More complete details are presented in appendix A.

Table 1. *Bidding Activity by Water Depth Zone*

Water Depth	Tracts with Bids	High Bids (MM)	Number of Bids	Average Bids/Tract
< 200 m	340	\$173.82	523	1.54
200 - 399 m	29	\$23.89	40	1.38
400 - 799 m	24	\$19.29	32	1.33
800 - 1,599 m	73	\$102.72	101	1.38
1,600+ m	91	\$49.05	133	1.46
Total	557	\$368.76	829	1.49

The bidding activity in Sale 190 resulted in a small decrease in the number of tracts receiving bids, but an increase in the number of bids and in aggregate high bids compared to the previous CGOM sale (Sale 185, March 19, 2003). In Sale 185, 561 tracts received bids, whereas 557 tracts received bids in Sale 190, resulting in a decrease of less than 1 percent. However, the sum of high bids submitted on tracts receiving bids in Sale 190 increased by about 17 percent compared to Sale 185 (\$368.76 million vs. \$315.53 million) and the number of bids increased by 4.5 percent (829 bids vs. 793 bids). The increase in number of bids was due to greater bidding

activity in water depths of 800 meters or more. The total number of tracts receiving bids decreased because of lower levels of bidding in water depths less than 200 meters.

The increase in aggregate high bids was due to higher bids in water depths of more than 800 meters. The amount of competition for tracts was similar to other recent CGOM lease sales. About 71 percent of tracts received single-bids. A summary of bidding results by number of bidders is presented in table 2, and bidding results by number of bids for the various water depth zones are presented in appendix B.

Table 2. *Bidding Results by Number of Bids Submitted*¹

Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	396	71.10%	\$145.12	39.35%
2	96	17.24%	\$57.96	15.72%
3	43	7.72%	\$51.96	14.09%
4	11	1.97%	\$21.45	5.82%
5 or more	11	1.97%	\$92.27	25.02%
Total	557	100.00%	\$368.76	100.00%

Sale 190 was typical of sales in the CGOM. Many more tracts received high bids greater than \$50 per acre, versus those receiving less than that amount. In Sale 190, tracts with high bids greater than \$150 per acre accounted for about 60 percent of aggregate high bids, an amount higher than that observed in Sale 185. A summary of bidding results by high bid per acre for the sale is presented in table 3, and bidding results by high bid per acre for the various water depth zones are presented in appendix C. In addition, a graphical presentation of bidding results is presented in appendix D.

Table 3. *Bidding Results by High Bid per Acre*

High Bid per Acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	224	40.22%	\$41.84	11.34%
\$50 - 74.99	122	21.90%	\$36.54	9.91%
\$75 - 99.99	52	9.34%	\$23.66	6.42%
\$100 - 149.99	70	12.57%	\$44.78	12.14%
\$150+	89	15.98%	\$221.95	60.19%
Total	557	100.00%	\$368.76	100.00%

¹In the tables throughout this report, percent totals may not add up to exactly 100.00 percent due to rounding. In addition, other totals in the tables, e.g., high bids, may also differ slightly from the text due to rounding.

Bidding on Royalty Suspension Volume Tracts

Twenty-four tracts in water depths between 400 - 799 meters that are eligible for royalty suspension volumes of 5 million barrels of oil equivalent (MMBOE) received bids, as did 73 tracts in 800 - 1,599 meters that are eligible for royalty suspension volumes of 9 MMBOE, and 91 tracts in 1,600 meters or more that are eligible for royalty suspension volumes of 12 MMBOE. These tracts accounted for 34 percent of the tracts in the sale receiving bids and 46 percent of the sale's high bids. To put the magnitude of this bidding activity in perspective, the number of tracts receiving bids in water depths of 400 meters or more in Sale 190 was 6 percent higher, and their associated high bids were 35 percent higher than those received in Sale 185.

In the water depth categories between 200 - 399 meters, bidding activity in Sale 190 was higher than the level observed in Sale 185, but the Sale 185 average high bid per acre was much higher. In Sales 190 and 185, tracts in water depths between 200 - 399 meters were not eligible for automatic royalty suspension volumes.

In comparing the average high bid per acre by water depth category between Sales 190 and 185, the Sale 190 averages were above those observed in Sale 185 in all water depth categories except 200 - 399 meters. In water depths less than 200 meters, the Sale 190 average was \$110.61/acre and the Sale 185 average was \$101.33/acre. In 200 - 399 meters, Sale 190's average was \$163.42/acre and Sale 185's was \$268.68/acre. For the deeper water depths, the Sale 190 averages were more than the Sale 185 averages. In 400 - 799 meters, Sale 190's average was \$139.51/acre and Sale 185's was \$116.12/acre. In 800 - 1,599 meters, Sale 190's average was \$246.29/acre and Sale 185's was \$168.36/acre. Finally, in 1,600 meters or more, Sale 190's average was \$93.58/acre and Sale 185's was \$72.66/acre. These results suggest that industry continues to perceive significant economic potential to exist in all water depths in the CGOM as average high bids are still well above the minimum bid level.

Phase 1 Results

Following the post-sale bid evaluation procedures, which include a modified 3-bid rule, high bids on 127 tracts were accepted in Phase 1 of Sale 190. High bids were accepted on 103 tracts in water depths less than 200 meters, 2 tracts in 200 - 399 meters, and 22 tracts in water depths of 400 meters or more, which are eligible for automatic royalty suspension volumes. The Phase 1 accepted high bids accounted for about 23 percent of the tracts receiving bids in the sale and 23 percent of the high bids.

The high bids accepted in Phase 1 were in two categories of tracts. There were 118 wildcat or confirmed tracts that were determined to be non-viable. In addition, high bids for nine tracts were accepted in Phase 1 by the number of bids rule. The Sale 190, Phase 1 results by number of bids and high bid per acre are presented in tables 4 and 5, respectively.

In addition, the high bid on one tract, G26304, in Phase 1, was deemed unacceptable (Rule I), as it did not meet the minimum bid requirement for its water depth category.

Table 4. *Phase I Results by Number of Bids*

Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	99	77.96%	\$25.32	30.04%
2	14	11.02%	\$3.85	4.57%
3+	14	11.02%	\$55.12	65.39%
Total	127	100.00%	\$84.29	100.00%

Table 5. *Phase I Results by High Bid per Acre*

High Bid per Acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	64	50.39%	\$10.55	12.52%
\$50 - 74.99	28	22.05%	\$8.08	9.58%
\$75 - 99.99	14	11.02%	\$6.31	7.49%
\$100 - 149.99	9	7.09%	\$4.90	5.81%
\$150+	12	9.45%	\$54.45	64.60%
Total	127	100.00%	\$84.29	100.00%

Revised Arithmetic Average Measure of Tract (RAM)

The RAM is a secondary bid acceptance criterion that was used in Phase 2 of the Sale 190 bid evaluation process on multi-bid tracts, which have high bids not exceeding the Government’s Adjusted Delayed Value (ADV). The ADV is explained in detail in appendix J.

For evaluating the high bids on multi-bid tracts that do not exceed the ADV, the RAM is applied to (a) drainage and development (DD) tracts having three or more qualified bids with the third highest bid being at least 25 percent of the tract’s high bid, and (b) confirmed and wildcat tracts having two or more qualified bids with the second highest bid being at least 25 percent of the tract’s high bid. Only bids that are at least 25 percent of the high bid are considered in calculating the RAM. If the high bid exceeds the RAM, it is accepted.

Use of the RAM allows the MMS to balance market factors and its own ADV evaluation in determining fair market value. Previously, using the Geometric Average Evaluation of Tract (GAEOT), a few low losing bids on a tract were sufficient to require an MMS evaluation of the ADV well in excess of \$100 million for the high bid to be rejected.

Using the RAM, the highest ADV required to reject a high bid on a multi-bid tract in Sale 190 was about \$55 million, and the majority was less than \$2 million. These values are not unreasonable relative to high bids observed in this sale.

In Sale 190, 56 tracts classified as wildcat and confirmed, and that received three or more bids were passed to Phase 2 for evaluation. Based on the RAM, these tracts could have bids accepted or rejected. After adjusting the number of bids to include only those bids that are at least 25 percent of a tract's high bid, 49 tracts could be eligible for a decision based on the RAM. These 32 tracts would require ADV's of around \$0.18 million to \$55.23 million for rejection. No high bids in Sale 190 were accepted because of the RAM. Detailed tables of tracts receiving three or more bids by water depth zone are presented in appendix E.

Bidding Activity

The number of companies participating in Sale 190 increased to 83 from the 74 active in Sale 185, the previous CGOM sale. Twenty companies submitted bids (either solo or jointly) on 20 or more tracts. Magnum Hunter Production was the most active company in terms of bids submitted with 86. The most high bids, 55, were also submitted by Magnum Hunter Production. Amerada Hess had the greatest aggregate high bids with a total of \$40.7 million.

With about 29 percent of the tracts receiving bids in the sale being multi-bid tracts, no firm that submitted 10 or more bids was the high bidder on every bid it submitted. For firms submitting 20 or more bids, the most successful bidder was Noble Energy, with 24 high bids out of the 26 bids that it offered.

Listed in table 6 are the 10 most active bidders in terms of total amount of high bids. Also listed in the table are the total number of bids and number of high bids submitted by the companies with their rank indicated in parentheses. Appendix F contains a summary of bids for all companies that participated in the sale.

Many of the companies that were most active in CGOM Sale 185 (March 19, 2003) were not among the most active in Sale 190. Among the companies that were very active in Sale 190, but had been less active in the previous CGOM sale were Amerada Hess, Stone Energy, Pogo Producing, Tana Exploration, Hunt Oil, Anadarko Petroleum, and Encana Gulf of Mexico. The magnitude of the high bids was greater in Sale 190 than in Sale 185 and many large independents showed higher levels of interest in this CGOM sale than in previous sales.

Appendix G presents a listing of bidding by the most active companies in Sales 190 and 185.

Table 6. *Most Active Bidders by Total Amount of High Bids*
(For Number of Bids and High Bids, rank is in parentheses.)

Company	Total High Bids	Number of Bids	High Bids
Amerada Hess	\$40,995,249	24 (10)	17 (11)
BHP Billiton (Deepwater)	\$18,496,331	44 (2)	32 (2)
Stone Energy	\$15,544,000	9 (37)	8 (26)
Pogo Producing	\$12,647,000	20 (19)	15 (14)
Tana Exploration	\$12,145,906	21 (17)	10 (21)
Hunt Oil	\$11,697,100	16 (24)	5 (39)
Anadarko Petroleum	\$10,865,789	15 (25)	9 (22)
Encana Gulf of Mexico	\$10,156,525	5 (50)	4 (44)
Chevron USA	\$10,032,218	43 (3)	29 (3)
Nexen Petroleum Offshore	\$9,793,160	15 (25)	9 (22)

Sale 190 vs. Sale 185

Sale 190 was similar to Sale 185 relative to the number of blocks receiving bids. However, the aggregate high bids in Sale 190 were about \$53 million greater than Sale 185's because of bids in excess of \$30 million on two blocks that had high bids rejected in Sale 185. The average high bid per acre was \$112.68 in Sale 185 as compared with \$131.84 in Sale 190. High bids in Sale 190 were \$368,763,482, an increase of 17 percent as compared to \$315,531,229 in Sale 185. In Sale 190, 557 tracts received 827 bids compared to the 793 bids received for 561 tracts in Sale 185. In addition, the number of bids per tract increased slightly to 1.48 from 1.41 in the previous sale.

The amount of bidding activity in deep water in Sale 190 increased compared to Sale 185. Specifically, the number of tracts potentially eligible for deepwater royalty suspension volumes (water depth of 400 meters or more) receiving bids increased by about 6 percent and the high bids on these tracts increased 35 percent. However, on the tracts eligible for shallow water (water depth of less than 200 meters), deep gas royalty suspension volumes, bidding activity decreased in Sale 190 compared to Sale 185. In Sale 190, 340 tracts potentially eligible for this category of royalty relief received bids, compared with 374 in Sale 185, a decrease of 9 percent. The high bids on tracts in water depths of less than 200 meters decreased by 1 percent compared to the previous sale in the CGOM. Appendix H presents a graphical comparison of sale results.

In Sale 190, 13 tracts with high bids that were rejected in Sale 185 received bids. In addition, there were three rejected tracts from Sale 185 with aggregate high bids of \$1,306,602 that did not receive bids in Sale 190.

The high bids on the 13 tracts with bids increased from \$16,626,462 in Sale 185 to \$72,352,924 in Sale 190, an increase in high bids of 335 percent. The number of bids on these 13 tracts increased from 21 to 34, a gain of 62 percent. Subsequently, the high bid on one of the tracts was rejected in Sale 190. For the 12 tracts on which the high bids were accepted, the increase in high bids was 338 percent. Seven tracts had Sale 190 high bids that were more than \$1 million greater than their previously rejected high bids, and of those, two had bids that were more than \$27 million higher. The potential to realize substantial gains in high bids on tracts that were previously rejected highlights the importance of MMS's bid adequacy procedures.

Appendix A

Sale 190

Bidding Summary

Central Gulf of Mexico

OCS Oil and Gas Lease Sale 190

Sale Day Statistics by Royalty Rate

	<u>16 2/3% Royalty</u>	<u>12 1/2% Royalty</u>	<u>Sale Total</u>
Tracts Receiving Bids	369	188	557
Acres Receiving Bids	1,717,568.13	1,079,468.21	2,797,036.34
Sum of High Bids	\$197,706,103	\$171,057,379	\$368,763,482
Sum of All Bids	\$301,157,706	\$335,661,828	\$636,819,534
Total Number of Bids	563	266	829
Average Bids	1.53	1.41	1.49
Companies Bidding	76	35	83
Highest Bid per Tract	\$6,080,000	\$35,290,892	\$35,290,892
- Tract Number	G26256	G26313	G26313
- Number of Bids	2	5	5
Highest Bid per Acre	\$5,113.31	\$6,126.89	\$6,126.89
- Tract Number	G26013	G26313	G26313
- Number of Bids	3	5	5
Most Bids	8	8	8
- Tract Number	G25872 G26086	G26420	G25872 G26086 G26420

Central Gulf of Mexico

OCS Oil and Gas Lease Sale 190

Sale Day Statistics for 16 2/3 Percent Royalty Rate Tracts

	<u>16 2/3% w/RS¹</u>	<u>16 2/3% w/ROY²</u>	<u>16 2/3% Total</u>
Tracts Receiving Bids	340	29	369
Acres Receiving Bids	1,571,388.30	146,179.83	1,717,568.13
Sum of High Bids	\$173,817,939	\$23,888,164	\$197,706,103
Sum of All Bids	\$272,425,716	\$28,731,990	\$301,157,706
Total Number of Bids	523	40	563
Average Bids	1.54	1.38	1.53
Companies Bidding	75	20	76
Highest Bid per Tract	\$5,317,700	\$6,080,000	\$6,080,000
- Tract Number	G26099	G26256	G26256
- Number of Bids	4	2	2
Highest Bid per Acre	\$5,113.31	\$1,055.56	\$5,113.31
- Tract Number	G26013	G26256	G26013
- Number of Bids	3	2	3
Most Bids	8	3	8
- Tract Number	G25872	G26223	G25872
	G26086	G26226	G26086
		G26227	

¹ “16 2/3 percent w/RS” is that category of tract in less than 200 meters of water with a royalty rate of 1/6 that is eligible for royalty suspension volumes of 20 billion cubic feet for natural gas from wells 15,000 feet or more deep.

² “16 2/3 percent w/ROY” is that category of tract in 200 to 399 meters of water with a royalty rate of 1/6 that is not eligible for an automatic royalty suspension volume.

Central Gulf of Mexico

OCS Oil and Gas Lease Sale 190

Sale Day Statistics for 12 1/2 Percent Royalty Rate Tracts

	<u>12 1/2% w/RS5¹</u>	<u>12 1/2% w/RS3²</u>	<u>12 1/2% w/RS4³</u>	<u>12 1/2% Royalty</u>
Tracts Receiving Bids	24	73	91	188
Acres Receiving Bids	138,240.00	417,068.21	524,160.00	1,079,468.21
Sum of High Bids	\$19,286,482	\$102,717,803	\$49,053,094	\$171,057,379
Sum of All Bids	\$22,647,205	\$234,986,997	\$78,027,626	\$335,661,828
Total Number of Bids	32	101	133	266
Average Bids	1.33	1.38	1.46	1.41
Companies Bidding	17	28	23	35
Highest Bid per Tract	\$4,688,289	\$35,290,892	\$8,213,415	\$35,290,892
- Tract Number	G26228	G26313	G26419	G26313
- Number of Bids	1	5	6	5
Highest Bid per Acre	\$813.94	\$6,126.89	\$1,425.94	\$6,126.89
- Tract Number	G26228	G26313	G26419	G26313
- Number of Bids	1	5	6	5
Most Bids	3	5	8	8
- Tract Number	G26265 G26286	G26313 G26315	G26420	G26420

¹ “12 1/2 percent w/RS5” is that category of tract in 400 to 799 meters of water with a royalty rate of 1/8 that is eligible for a royalty suspension volume of 5 MMBOE per lease.

² “12 1/2 percent w/RS3” is that category of tract in 800 to 1,599 meters of water with a royalty rate of 1/8 that is eligible for a royalty suspension volume of 9 MMBOE per lease.

³ “12 1/2 percent w/RS4” is that category of tract in 1,600 or more meters of water with a royalty rate of 1/8 that is eligible for a royalty suspension volume of 12 MMBOE per lease.

Appendix B

Sale 190

Bidding by Number of Bids

Sale 190

All Tracts

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	396	71.10%	\$145.12	39.35%
2	96	17.24%	\$57.96	15.72%
3	43	7.72%	\$51.96	14.09%
4	11	1.97%	\$21.45	5.82%
5+	11	1.97%	\$92.27	25.02%
Total	557	100.00%	\$368.76	100.00%

Tracts with 1/6 Royalty Rate

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	252	68.29%	\$80.81	40.87%
2	70	18.97%	\$44.46	22.49%
3	31	8.40%	\$37.07	18.75%
4	10	2.71%	\$20.95	10.59%
5+	6	1.63%	\$14.42	7.29%
Total	369	100.00%	\$197.71	100.00%

Tracts with 1/8 Royalty Rate

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	144	76.60%	\$64.31	46.05%
2	26	13.83%	\$13.50	34.55%
3	12	6.38%	\$14.89	13.80%
4	1	0.53%	\$0.51	5.60%
5+	5	2.66%	\$77.85	0.00%
Total	188	100.00%	\$171.06	100.00%

Sale 190, by Water Depth Category

1/6 Royalty (<200 meters; 15 billion cubic feet [bcf] Royalty Suspension Volume [RSV] for gas from deep wells, i.e., drilling depth of > 15,000 feet but less than 18,000 feet or 25 bcf for > 18,000 feet)

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	231	67.94%	\$71.53	41.15%
2	65	19.12%	\$35.70	20.54%
3	28	8.24%	\$31.23	17.96%
4	10	2.94%	\$20.95	12.05%
5+	6	1.76%	\$14.42	8.30%
Total	340	100.00%	\$173.82	100.00%

1/6 Royalty (200-399 meters; no automatic RSV)

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	21	72.41%	\$9.28	38.84%
2	5	17.24%	\$8.76	36.69%
3	3	10.34%	\$5.84	24.47%
4	0	0.00%	\$0.00	0.00%
5+	0	0.00%	\$0.00	0.00%
Total	29	100.00%	\$23.89	100.00%

1/8 Royalty (400-799 meters; 5 MMBOE RSV per lease)

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	18	75.00%	\$12.63	65.50%
2	4	16.67%	\$1.95	10.12%
3	2	8.33%	\$4.70	24.37%
4	0	0.00%	\$0.00	0.00%
5+	0	0.00%	\$0.00	0.00%
Total	24	100.00%	\$19.29	100.00%

1/8 Royalty (800-1,599 meters; 9 MMBOE RSV per lease)

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	55	75.34%	\$23.89	23.26%
2	12	16.44%	\$5.24	5.10%
3	4	5.48%	\$7.21	7.02%
4	0	0.00%	\$0.00	0.00%
5+	2	2.74%	\$66.38	64.62%
Total	73	100.00%	\$102.72	100.00%

1/8 Royalty (1,600 or more meters; 12 MMBOE RSV per lease)

No. Of Bids	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
1	71	78.02%	\$27.79	56.64%
2	10	10.99%	\$6.31	12.86%
3	6	6.59%	\$2.98	6.08%
4	1	1.10%	\$0.51	1.03%
5+	3	3.30%	\$11.47	23.38%
Total	91	100.00%	\$49.05	100.00%

Appendix C

Sale 190

Bidding by High Bid per Acre

Sale 190

All Tracts

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	224	40.22%	\$41.84	11.34%
\$50 - 74.99	122	21.90%	\$36.54	9.91%
\$75 - 99.99	52	9.34%	\$23.66	6.24%
\$100 - 149.99	70	12.57%	\$44.78	12.14%
\$150+	89	15.98%	\$221.95	60.19%
Total	557	100.00%	\$368.76	100.00%

Tracts with 1/6 Royalty Rate

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	158	42.82%	\$25.48	12.89%
\$50 - 74.99	72	19.51%	\$19.52	9.88%
\$75 - 99.99	28	7.59%	\$11.46	5.79%
\$100 - 149.99	41	11.11%	\$23.91	12.09%
\$150+	70	18.97%	\$117.34	59.35%
Total	369	100.00%	\$197.71	100.00%

Tracts with 1/8 Royalty Rate

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	66	35.11%	\$16.36	9.56%
\$50 - 74.99	50	26.60%	\$17.01	9.95%
\$75 - 99.99	24	12.77%	\$12.20	7.13%
\$100 - 149.99	29	15.43%	\$20.87	12.20%
\$150+	19	10.11%	\$104.61	61.16%
Total	188	100.00%	\$171.06	100.00%

Sale 190, by Water Depth Category

1/6 Royalty (< 200 meters; 15 billion cubic feet [bcf] Royalty Suspension Volume [RSV] for gas from deep wells, i.e., drilling depth of > 15,000 feet but less than 18,000 feet or 25 bcf for > 18,000 feet)

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	148	43.53%	\$23.84	13.72%
\$50 - 74.99	70	20.59%	\$19.14	11.01%
\$75 - 99.99	25	7.35%	\$10.01	5.76%
\$100 - 149.99	34	10.00%	\$19.49	11.21%
\$150+	63	18.53%	\$101.33	58.30%
Total	340	100.00%	\$173.82	100.00%

1/6 Royalty (200-399 meters; no automatic RSV)

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	10	34.48%	\$1.63	6.84%
\$50 - 74.99	2	6.90%	\$0.38	1.60%
\$75 - 99.99	3	10.34%	\$1.45	6.05%
\$100 - 149.99	7	24.14%	\$4.41	18.48%
\$150+	7	24.14%	\$16.01	67.03%
Total	29	100.00%	\$23.89	100.00%

1/8 Royalty (400 - 799 meters; 5 MMBOE RSV per lease)

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	9	37.50%	\$2.03	10.55%
\$50 - 74.99	4	16.67%	\$1.43	7.41%
\$75 - 99.99	4	16.67%	\$2.00	10.37%
\$100 - 149.99	4	16.67%	\$2.89	15.01%
\$150+	3	12.50%	\$10.93	56.67%
Total	24	100.00%	\$19.29	100.00%

1/8 Royalty (800-1,599 meters; 9 MMBOE RSV per lease)

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	29	39.73%	\$7.29	7.10%
\$50 - 74.99	16	21.92%	\$5.62	5.47%
\$75 - 99.99	8	10.96%	\$3.92	3.82%
\$100 - 149.99	11	15.07%	\$7.99	7.78%
\$150+	9	12.33%	\$77.90	75.83%
Total	73	100.00%	\$102.72	100.00%

1/8 Royalty (1,600 or more meters; 12 MMBOE RSV per lease)

High Bid/acre	Tracts	Percent of Tracts	High Bids (MM)	Percent of High Bids
< \$50	28	30.77%	\$7.03	14.34%
\$50 - 74.99	30	32.97%	\$9.97	20.32%
\$75 - 99.99	12	13.19%	\$6.28	12.81%
\$100 - 149.99	14	15.38%	\$9.98	20.35%
\$150+	7	7.69%	\$15.79	32.19%
Total	91	100.00%	\$49.05	100.00%

Appendix D

Sale 190

Bidding Results – Graphs

Distribution of High Bids Sale 190, CGOM

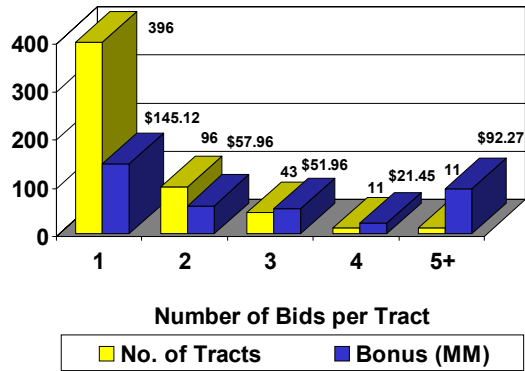
Prepared by:
Economics Division, MMS

Sale 190 (CGOM) Bidding Results

- 557 tracts received 829 bids (1.49 bids/tract)
- High bids were \$368.76 MM
- Average high bid per acre was \$131.84
- 83 companies submitted bids
- 369 tracts in < 400 meters received bids - 62.25% of tracts and 53.61% of high bids
- 188 tracts in 400+ meters received bids - 37.75% of tracts and 46.39% of high bids

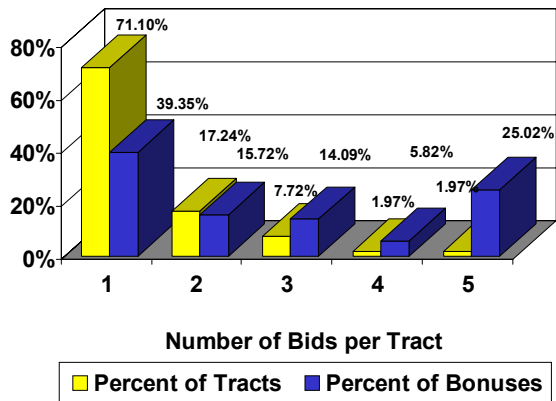
Sale 190, Aggregate

Bidding Activity by Bids per Tract



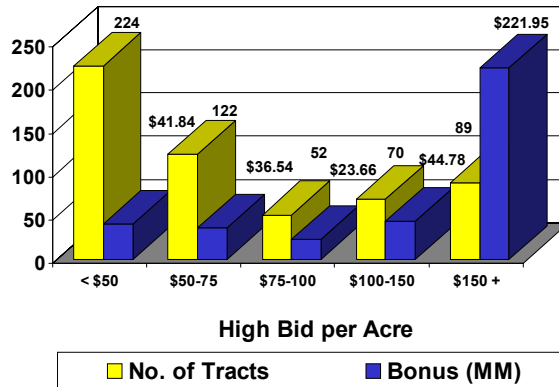
Sale 190, Aggregate

Bidding Activity by Bids per Tract



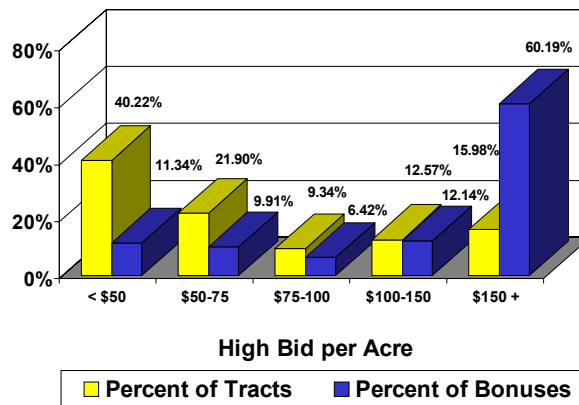
Sale 190, Aggregate

Bidding Activity by High Bid per Acre



Sale 190, Aggregate

Bidding Activity by High Bid per Acre



Sale 190

Bidding by Water Depth Category

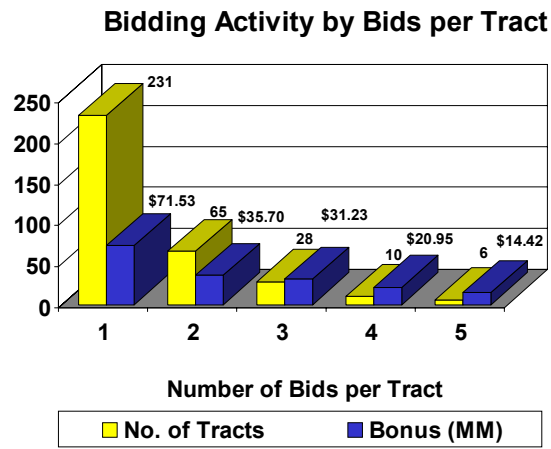
Prepared by:
Economics Division, MMS

Sale 190 (CGOM)

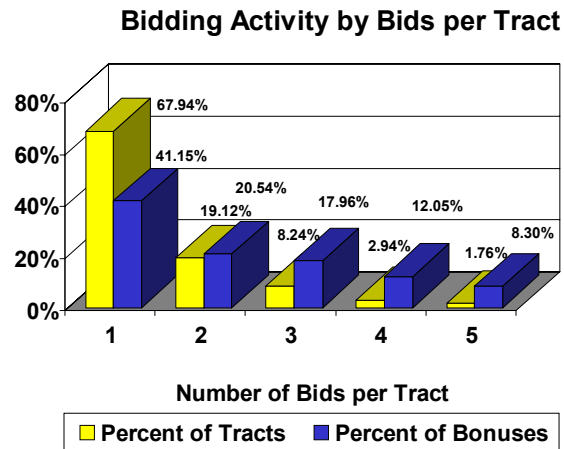
Bidding by Water Depth Category

- 340 tracts in < 200 meters received 523 bids and high bids of \$173.82 MM (\$110.61/acre)
- 29 tracts in 200-399 meters had 40 bids and high bids of \$23.89 MM (\$163.42/acre)
- 24 tracts in 400-799 meters had 32 bids and high bids of \$19.29 MM (\$139.51/acre)
- 73 tracts in 800-1,599 meters had 101 bids and high bids of \$102.72 MM (\$246.29/acre)
- 91 tracts in > 1,600 meters had 133 bids and high bids of \$49.05 MM (\$93.58/acre)

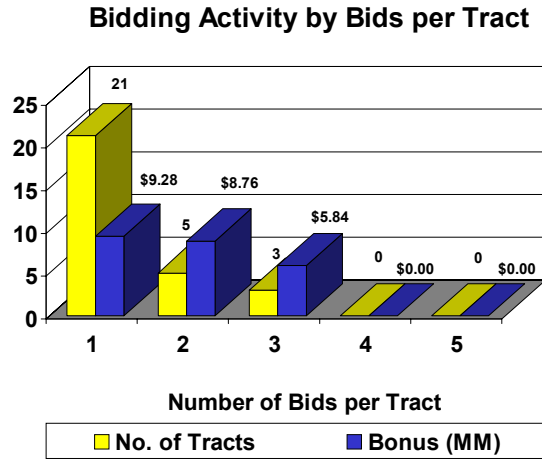
Sale 190, Tracts in < 200 Meters Water Depth



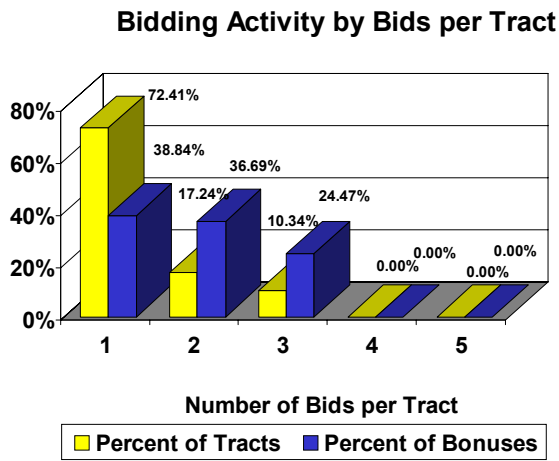
Sale 190, Tracts in < 200 Meters Water Depth



Sale 190, Tracts in 200-399 Meters Water Depth

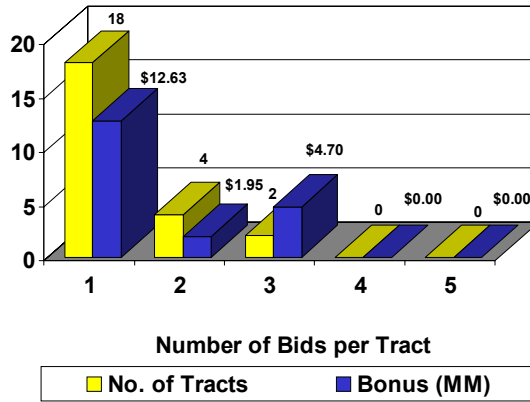


Sale 190, Tracts in 200-399 Meters Water Depth



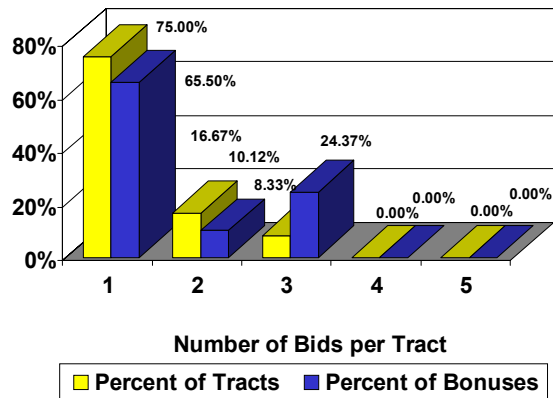
Sale 190, Tracts in 400-799 Meters Water Depth

Bidding Activity by Bids per Tract



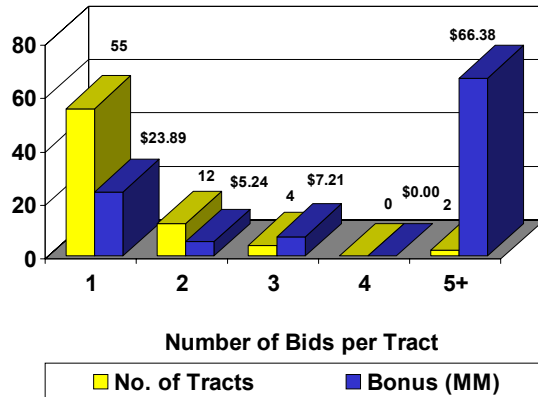
Sale 190, Tracts in 400-799 Meters Water Depth

Bidding Activity by Bids per Tract



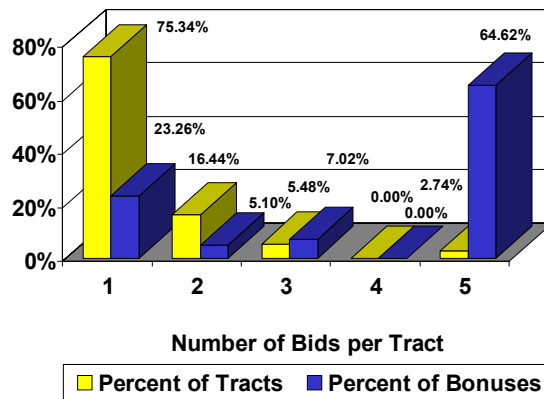
Sale 190, Tracts in 800-1,599 Meters Water Depth

Bidding Activity by Bids per Tract



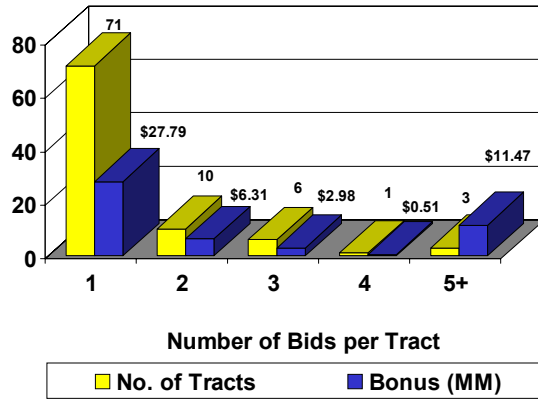
Sale 190, Tracts in 800-1,599 Meters Water Depth

Bidding Activity by Bids per Tract



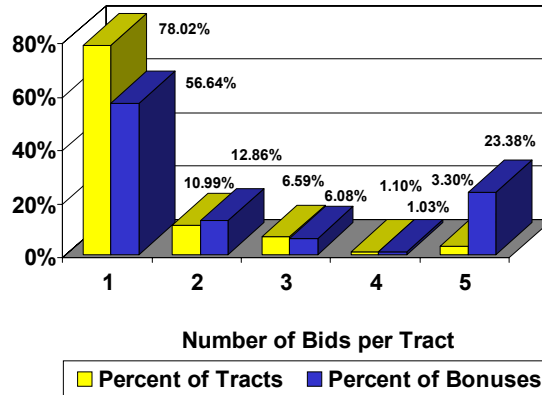
Sale 190, Tracts in 1,600 Meters Water Depth

Bidding Activity by Bids per Tract



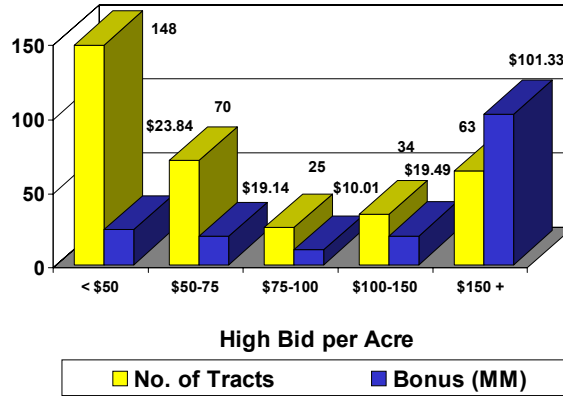
Sale 190, Tracts in 1,600 Meters Water Depth

Bidding Activity by Bids per Tract



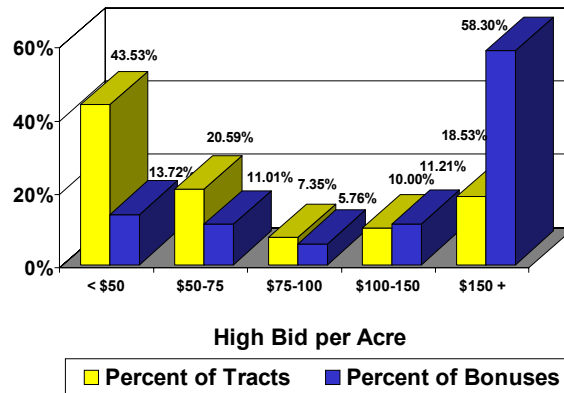
Sale 190, Tracts in < 200 Meters Water Depth

Bidding Activity by High Bid per Acre



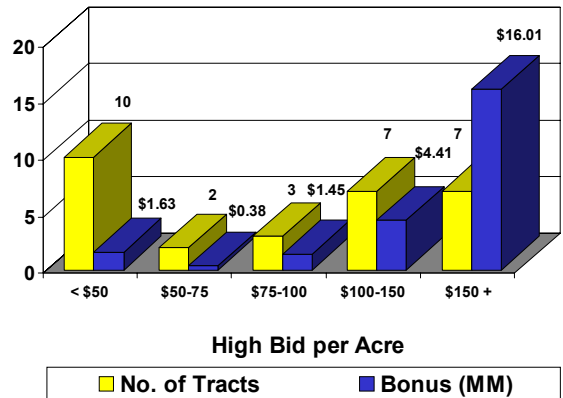
Sale 190, Tracts in < 200 Meters Water Depth

Bidding Activity by High Bid per Acre



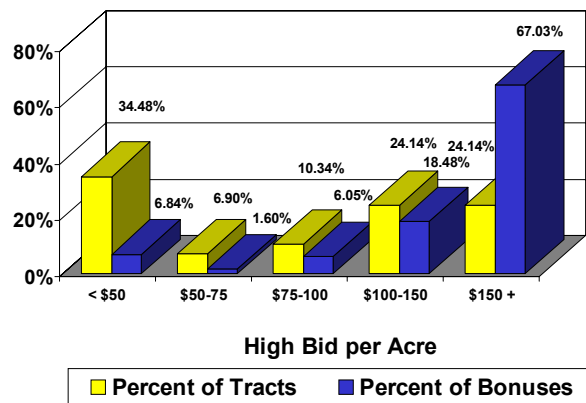
Sale 190, Tracts in 200-399 Meters Water Depth

Bidding Activity by High Bid per Acre



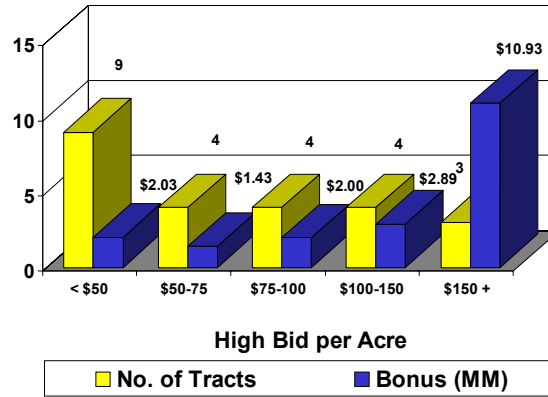
Sale 190, Tracts in 200-399 Meters Water Depth

Bidding Activity by High Bid per Acre



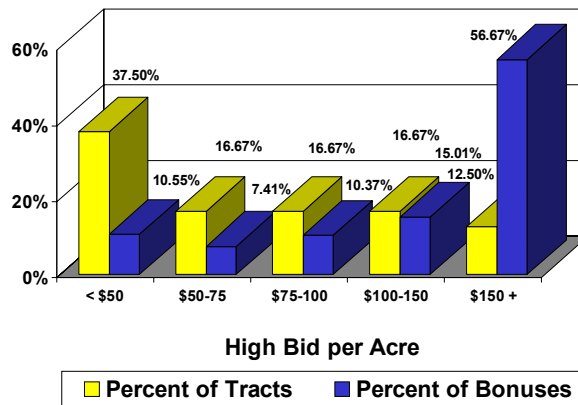
Sale 190, Tracts in 400-799 Meters Water Depth

Bidding Activity by High Bid per Acre



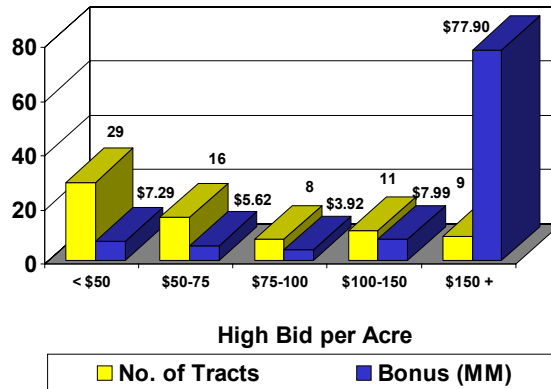
Sale 190, Tracts in 400-799 Meters Water Depth

Bidding Activity by High Bid per Acre



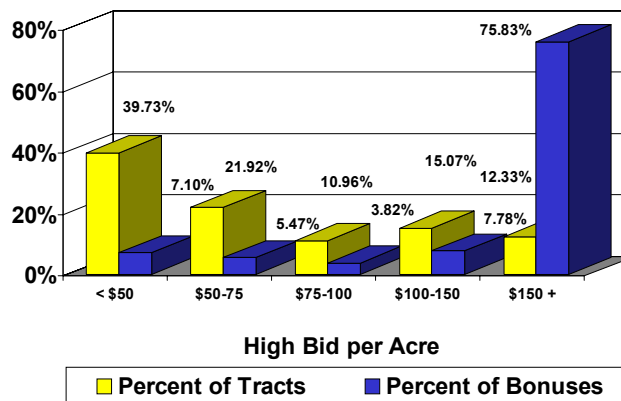
Sale 190, Tracts in 800-1,599 Meters Water Depth

Bidding Activity by High Bid per Acre



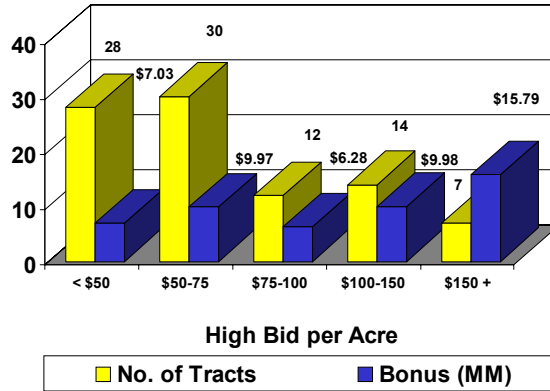
Sale 190, Tracts in 800-1,599 Meters Water Depth

Bidding Activity by High Bid per Acre



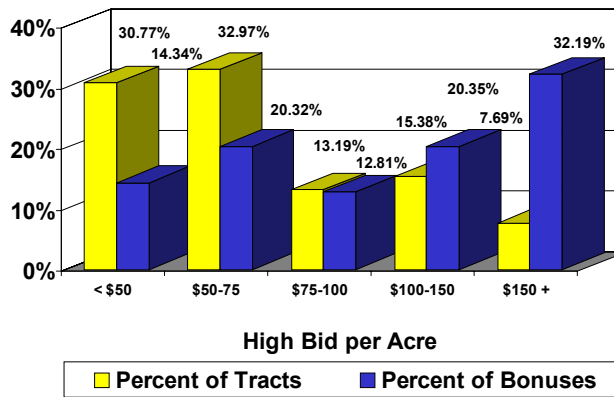
Sale 190, Tracts in 1,600+ Meters Water Depth

Bidding Activity by High Bid per Acre



Sale 190, Tracts in 1,600+ Meters Water Depth

Bidding Activity by High Bid per Acre



Appendix E

Sale 190

**Revised Arithmetic Average Measure
(RAM)**

Sale 190, Tracts with Three or More Bids

In Sale 190, three or more bids were received on 65 tracts. Table E1 presents the distribution of those bids by water depth category and third bid as a percent of high bid.

Table E1. *Percent Difference Between a Tract's High Bid and Third Bid as a Percent of High Bid by Water Depth Category*

Category	< 25%	25 - 50%	50 - 75%	> 75%	Total
< 200 m	3	7	17	17	44
200 - 399 m	0	1	0	2	3
400 - 799 m	0	0	1	1	2
800 - 1,599 m	0	1	3	2	6
1,600 m or more	1	5	4	0	10
Total	4	14	25	22	65

Applying the bid adequacy procedures, the modified number of bids rule was used for Phase 1 acceptance of high bids on selected tracts receiving three or more bids. Under the rule, high bids on wildcat and confirmed tracts receiving three or more bids are accepted in Phase 1, if the third highest bid on the tract is at least 50 percent of the high bid and the high bid per acre ranks in the top 75 percent of high bids per acre for all three-or-more bid tracts within a specified water depth category. (The procedure is described in the *Federal Register*, vol. 64, no.132, pp. 37,560-37,562.) In Sale 190, 9 three-or-more bid tracts met the bid acceptance criteria described above.

A modified Phase 2 averaging rule, the RAM of tract value was also applicable in this sale. The RAM is a secondary bid acceptance rule that is used on multi-bid tracts if the Government's ADV of the tract exceeds the high bid. The RAM is an arithmetic average of a tract's high bid, ADV, and all other bids that are at least 25 percent of the high bid. If a bid on a tract is not at least 25 percent of the high bid, that bid is considered an outlier and not included in the RAM calculation. Thus, the adjusted number of bids on a tract for the RAM calculation can be less than the total number of bids that a tract receives.

For those tracts on which the RAM is used as the bid acceptance rule, if the RAM is less than the tract's high bid, then the high bid is accepted, and if the RAM exceeds the high bid, then the high bid is rejected.

Fifty-six tracts that could potentially use the RAM as the bid acceptance decision rule were passed to Phase 2 for further evaluation. Of those, 7 tracts did not have second bids that were at least 25 percent of the high bids. So, the use of the RAM as a Phase 2 decision criterion for those tracts was not a possibility. For the remaining 49 tracts, the ADV's needed to reject a tract's high bid using the RAM were calculated. Using the RAM, 12 tracts need an ADV of less than \$1 million, 30 tracts need an ADV of between \$1 million to \$5 million, 5 tracts need an ADV of between \$5 million to \$10 million, and 2 tracts need an ADV of \$10 million or more for high bid rejection based on this criterion. The results are presented in table E2. The RAM was not used to accept any high bids in Sale 190.

Table E2. *ADV Needed to Reject a High Bid Using the RAM by Water Depth Category*

Category	< \$1 MM	\$1-5 MM	\$5-10 MM	> \$10 MM	Total
< 200 m	7	23	3	0	33
200 - 399 m	1	0	1	0	2
400 - 799 m	0	1	1	0	2
800 – 1,599 m	0	3	0	1	4
1,600 m or more	4	3	0	1	8
Total	12	30	5	2	49

Sale 190, Tracts with Three or More Bids Passed to Phase 2

Table E3. *Tracts in < 200 Meters; potential Royalty Suspension Volume of 15 billion cubic feet (bcf) for natural gas from deep wells > 15,000 but < 18,000 feet or 25 bcf from wells 18,000 feet or more*

Tract	High Bid	No. of Bids	3 rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G25871	\$2,214,780	4	37.72%	3	\$3,958,655
G25893	\$310,900	3	48.25%	3	\$521,600
G25939	\$2,131,000	3	19.24%	1	Not Applicable
G25943	\$2,212,790	3	5.88%	1	Not Applicable
G25999	\$1,050,000	3	29.29%	3	\$2,322,945
G26000	\$1,280,000	5	42.05%	4	\$3,409,765
G26013	\$4,050,000	3	5.22%	1	Not Applicable
G26014	\$1,700,000	6	44.16%	3	\$3,037,243
G26024	\$523,900	3	34.89%	3	\$1,111,900
G26026	\$775,575	4	29.40%	3	\$1,646,780

Tract	High Bid	No. of Bids	3rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G26033	\$185,250	3	42.48%	3	\$394,214
G26035	\$679,000	3	36.82%	3	\$1,507,440
G26039	\$559,955	4	59.93%	4	\$1,194,048
G26051	\$2,222,222	4	19.25%	2	\$2,434,535
G26067	\$153,875	3	90.25%	3	\$180,180
G26080	\$3,350,378	3	18.91%	2	\$5,481,635
G26086	\$2,805,595	8	49.15%	6	\$9,632,153
G26089	\$1,312,000	3	14.47%	2	\$1,948,683
G26098	\$2,733,000	4	16.10%	2	\$2,807,135
G26099	\$5,317,700	4	12.12%	2	\$8,028,400
G26103	\$317,500	3	39.78%	3	\$676,049
G26108	\$755,000	3	46.87%	3	\$1,254,435
G26112	\$562,500	3	23.65%	2	\$903,677
G26118	\$875,317	3	20.76%	2	\$1,271,634
G26128	\$542,500	3	47.37%	3	\$1,029,183
G26137	\$1,500,317	3	40.98%	3	\$2,546,150
G26146	\$1,273,700	3	23.95%	2	\$1,327,400
G26148	\$463,000	3	21.81%	1	Not Applicable
G26149	\$1,722,000	3	13.41%	2	\$2,210,000
G26162	\$172,323	3	77.93%	3	\$215,113
G26163	\$1,330,304	4	38.51%	3	\$2,847,453
G26166	\$1,063,900	3	16.45%	2	\$1,615,477
G26168	\$550,279	5	52.74%	5	\$1,512,885
G26175	\$2,300,317	4	19.47%	2	\$4,006,857
G26188	\$877,500	3	20.71%	2	\$1,203,700
G26217	\$188,009	3	27.01%	3	\$377,712
G26218	\$625,828	3	34.84%	3	\$1,348,365
G26221	\$1,222,000	3	2.32%	1	Not Applicable

Table E4. *Tracts in 200 - 399 Meters; No Royalty Suspension Volume*

Tract	High Bid	No. of Bids	3rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G26223	\$261,512	3	55.19%	3	\$403,213
G26226	\$4,250,000	3	5.15%	2	\$7,400,001
G26227	\$1,333,000	3	12.75%	1	Not Applicable

Table E5. *Tracts in 400 - 799 Meters; 5 MMBOE Royalty Suspension Volume*

Tract	High Bid	No. of Bids	3rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G26265	\$4,189,900	3	17.93%	2	\$7,254,300
G26286	\$511,000	3	31.04%	3	\$1,210,477

Table E6. *Tracts in 800 – 1,599 Meters; 9 MMBOE Royalty Suspension Volume*

Tract	High Bid	No. of Bids	3rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G26261	\$2,723,900	3	8.05%	1	Not Applicable
G26315	\$31,088,000	5	33.78%	3	\$55,231,200
G26323	\$642,240	3	36.25%	3	\$1,406,932
G26363	\$3,116,160	3	11.51%	2	\$3,230,366
G26370	\$729,317	3	30.80%	3	\$1,557,716

Table E7. *Tracts in 1,600 Meters or More; 12 MMBOE Royalty Suspension Volume*

Tract	High Bid	No. of Bids	3rd Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G26263	\$500,017	3	65.26%	3	\$799,334
G26337	\$757,800	3	34.56%	3	\$1,733,028
G26344	\$343,892	3	73.72%	3	\$452,736
G26345	\$757,000	3	34.60%	3	\$1,719,013
G26353	\$325,786	3	69.61%	3	\$444,974
G26416	\$1,505,260	6	48.45%	5	\$4,699,183
G26419	\$8,213,415	6	33.32%	4	\$23,962,843
G26424	\$297,317	3	73.86%	3	\$408,774

Appendix F

Sale 190

Summary of Company Bids

Sale 185 - Company Bids by Total Amount of High Bids

Rank	Company #	Company Name	Total	High	Losers	Total Exposed	Total High Bids	Total Unsuccessful
1	59	Amerada Hess	24	17	7	\$49,995,249	\$40,710,005	\$9,285,244
2	2277	BHP Billiton (Deepwater)	44	32	12	\$27,710,776	\$18,496,331	\$9,214,446
3	1834	Stone Energy	9	8	1	\$15,697,000	\$15,544,000	\$153,000
4	231	Pogo Producing	20	15	5	\$13,688,000	\$12,647,000	\$1,041,000
5	2579	Tana Exploration	21	10	11	\$16,500,000	\$12,145,906	\$4,354,094
6	64	Hunt Oil	16	5	11	\$16,243,200	\$11,697,100	\$4,546,100
7	981	Anadarko Petroleum	15	9	6	\$17,269,640	\$10,865,789	\$6,403,851
8	2611	Encana Gulf of Mexico	5	4	1	\$11,274,232	\$10,156,525	\$1,117,707
9	78	Chevron USA	43	29	14	\$24,214,941	\$10,032,218	\$14,182,723
10	2079	Nexen Petroleum Offshore	15	9	6	\$14,850,176	\$9,793,160	\$5,057,015
11	282	Dominion E & P	19	8	11	\$46,375,185	\$9,326,675	\$37,048,510
12	2169	Spinnaker Exploration	24	15	9	\$21,539,918	\$9,237,213	\$12,302,705
13	1364	Newfield Exploration	23	15	8	\$12,436,391	\$9,232,157	\$3,204,234
14	2219	Kerr-McGee Oil & Gas	33	22	11	\$39,890,731	\$9,115,181	\$30,775,550
15	1978	Helis Oil & Gas	21	16	5	\$14,572,006	\$8,979,389	\$5,592,617
16	3	Union Oil - California	5	4	1	\$13,048,586	\$8,774,836	\$4,273,750
17	2349	Magnum Hunter Production	86	55	31	\$15,538,270	\$8,364,868	\$7,173,402
18	1935	Pioneer Natural Resources	24	19	5	\$10,518,644	\$8,308,817	\$2,209,827
19	2481	BP E & P	31	24	7	\$12,909,827	\$8,162,608	\$4,747,219
20	56	ConocoPhillips	26	23	3	\$17,325,130	\$6,570,630	\$10,754,500
21	2237	Noble Energy	26	24	2	\$6,581,404	\$6,121,404	\$460,000
22	2479	Republic Exploration	31	19	12	\$12,673,823	\$5,846,858	\$6,826,965
23	2466	Gryphon Exploration	13	7	6	\$8,170,700	\$5,784,700	\$2,386,000
24	689	Shell Offshore	23	16	7	\$7,628,072	\$5,502,906	\$2,125,166
25	114	BP America Production	9	4	5	\$12,504,853	\$5,386,268	\$7,118,585
26	2058	LLOG Exploration Offshore	18	11	7	\$8,707,500	\$5,379,000	\$3,328,500
27	2421	Devon Energy Production	23	14	9	\$14,462,259	\$4,985,380	\$9,476,879
28	276	Exxon Mobil	13	8	5	\$10,974,000	\$4,929,000	\$6,045,000
29	2525	Westport Resources	9	5	4	\$10,948,971	\$4,762,650	\$6,186,321
30	818	Mariner Energy	14	9	5	\$5,923,165	\$4,640,697	\$1,282,468

F-1

Rank	Company #	Company Name	Total	High	Losers	Total Exposed	Total High Bids	Total Unsuccessful
31	1704	Remington Oil and Gas	41	25	16	\$8,797,921	\$4,571,124	\$4,226,797
32	1046	The Houston Exploration Co.	10	6	4	\$6,410,907	\$4,447,730	\$1,963,177
33	222	Hunt Petroleum (AEC)	9	7	2	\$5,020,545	\$4,373,815	\$646,730
34	1284	W & T Offshore	9	8	1	\$4,356,815	\$4,306,031	\$50,784
35	2407	Woodside Energy (USA)	24	21	3	\$7,502,445	\$4,245,991	\$3,256,454
36	236	El Paso Production	5	3	2	\$6,976,900	\$3,785,200	\$3,191,700
37	2643	Contango Offshore	12	8	4	\$4,252,642	\$3,748,480	\$504,163
38	1207	Petrobras America	9	4	5	\$6,927,200	\$3,649,000	\$3,278,200
39	2668	Red Willow Offshore	17	12	5	\$5,755,844	\$3,425,587	\$2,330,257
40	730	Walter Oil & Gas	10	6	4	\$4,660,518	\$3,343,278	\$1,317,240
41	2528	Norsk Hydro USA Oil & Gas	8	7	1	\$4,000,000	\$3,288,000	\$712,000
42	2266	Energy Partners	12	8	4	\$4,762,661	\$3,041,681	\$1,720,980
43	1355	Cabot Oil & Gas	10	8	2	\$3,945,240	\$3,008,560	\$936,680
44	2268	Bois d'Arc Offshore	12	9	3	\$5,085,900	\$2,963,900	\$2,122,000
45	1999	Houston Energy	20	15	5	\$3,562,615	\$2,164,461	\$1,398,154
46	2066	Ridgelake Energy	9	4	5	\$3,131,740	\$2,068,740	\$1,063,000
47	2647	Murphy E & P	8	3	5	\$11,836,422	\$1,621,475	\$10,214,947
48	1513	Callon Petroleum	2	1	1	\$1,807,363	\$1,493,869	\$313,494
49	2248	Eni Petroleum Exploration	6	4	2	\$1,909,995	\$1,466,137	\$443,858
50	1586	Petsec Energy	4	3	1	\$2,118,375	\$1,331,475	\$786,900
51	2646	Chanex	6	6	0	\$1,319,501	\$1,319,501	\$0
52	2341	Winwell Resources	7	5	2	\$1,615,518	\$1,266,223	\$349,295
53	560	Seneca Resources	3	3	0	\$1,238,035	\$1,238,035	\$0
54	724	Marathon Oil	11	5	6	\$3,147,283	\$1,197,883	\$1,949,400
55	2454	Valiant Energy	3	3	0	\$940,000	\$940,000	\$0
56	2538	Manti Resources	6	5	1	\$1,055,000	\$910,000	\$145,000
57	1963	Apex Oil & Gas	2	2	0	\$868,000	\$868,000	\$0
58	2377	MCX Gulf of Mexico	5	4	1	\$921,900	\$773,110	\$148,790
59	1866	Range Energy Ventures	2	1	1	\$872,197	\$720,911	\$151,286
60	2427	Virgin Offshore USA	3	3	0	\$661,912	\$661,912	\$0

Rank	Company #	Company Name	Total	High	Losers	Total Exposed	Total High Bids	Total Unsuccessful
61	1958	Maxus (US) Exploration	3	2	1	\$870,367	\$643,578	\$226,789
62	2719	Cities Energy	4	3	1	\$788,217	\$631,914	\$156,303
63	48	Forest Oil	3	2	1	\$675,650	\$533,970	\$141,680
64	2312	McMoRan Oil & Gas	4	2	2	\$741,217	\$519,950	\$221,267
65	2432	Andex Resources	4	3	1	\$539,301	\$447,313	\$91,987
66	2480	Davis Offshore	2	2	0	\$349,390	\$349,390	\$0
67	2392	Triangle Oil & Gas	1	1	0	\$318,425	\$318,425	\$0
68	1500	Total E & P USA	4	2	2	\$800,040	\$300,020	\$500,020
69	2038	Mako Offshore Exploration	4	2	2	\$585,975	\$250,000	\$335,975
70	2561	NCX Company	2	1	1	\$899,410	\$245,390	\$654,020
71	2506	Wolf Resources	3	2	1	\$218,721	\$172,735	\$45,987
72	1103	EOG Resources	4	1	3	\$1,321,875	\$155,250	\$1,166,625
73	2417	Arena Energy	3	1	2	\$596,000	\$152,000	\$444,000
74	2566	F-W Oil Exploration	2	1	1	\$339,400	\$92,600	\$246,800
75	2222	PetroQuest Energy	3	1	2	\$382,070	\$87,500	\$294,570
76	1857	TDC Energy	2	1	1	\$263,428	\$62,429	\$200,999
77	2723	Ayco Energy	1	1	0	\$61,642	\$61,642	\$0
78	2594	East Cameron Partners	1	0	1	\$410,000	\$0	\$410,000
79	2478	Stephens Production	1	0	1	\$405,002	\$0	\$405,002
80	2330	Cheniere Energy	1	0	1	\$305,000	\$0	\$305,000
81	2636	SPN Resources	1	0	1	\$150,000	\$0	\$150,000
82	2397	Samson Offshore	1	0	1	\$107,656	\$0	\$107,656
83	2574	CL&F Resources	1	0	1	\$56,708	\$0	\$56,708

Appendix G

Sales 190 and 185

Active Bidders

Companies Participating in 20 or More Bids in Sale 190

Company	Co. #	< 200 m	200 - 399 m	400 - 799 m	800 - 1,599 m	1,600+ m	Total	Exposure	Exposure Rank	Exposure per Bid
Magnum Hunter Production	2349	82	4	0	0	0	86	\$15,538,270	12	\$180,678
BHP Billiton (Deepwater)	2277	33	0	1	5	5	44	\$27,710,776	4	\$629,790
Chevron USA	78	17	3	0	5	18	43	\$24,214,941	5	\$563,138
Remington Oil and Gas	1704	41	0	0	0	0	41	\$8,797,921	27	\$214,583
Kerr-McGee Oil & Gas	2219	4	3	2	10	14	33	\$39,890,731	3	\$1,208,810
BP E & P	2481	7	0	0	9	15	31	\$12,909,827	18	\$416,446
Republic Exploration	2479	31	0	0	0	0	31	\$12,673,823	19	\$408,833
ConocoPhillips	56	2	0	2	13	9	26	\$17,325,130	7	\$666,351
Noble Energy	2237	24	0	1	1	0	26	\$6,591,404	34	\$253,516
Amerada Hess	59	0	0	0	13	11	24	\$49,995,249	1	\$2,083,135
Spinnaker Exploration	2169	12	3	2	3	4	24	\$21,539,918	6	\$897,497
Pioneer Natural Resources	1935	6	0	3	5	10	24	\$10,518,644	26	\$438,277
Woodside Energy (USA)	2407	4	0	0	11	9	24	\$7,502,445	31	\$312,602
Devon Energy Production	2421	14	1	2	1	5	23	\$14,462,259	15	\$628,794
Newfield Exploration	1364	17	2	1	0	3	23	\$12,436,391	21	\$540,713
Shell Offshore	689	1	0	4	6	12	23	\$7,628,072	30	\$331,655
Tana Exploration	2579	17	3	1	0	0	21	\$16,500,000	9	\$785,714
Helis Oil & Gas	1978	17	1	0	3	0	21	\$14,572,006	14	\$693,905
Pogo Producing	231	15	3	2	0	0	20	\$13,688,000	16	\$684,400
Houston Energy	1999	16	1	0	3	0	20	\$3,562,615	46	\$178,131

Companies Participating in 20 or More Bids in Sale 185

Company	Co. #	< 200 m	200 - 399 m	400 - 799 m	800 - 1,599 m	1,600+ m	Total	Exposure	Exposure Rank	Exposure per Bid
Kerr-McGee Oil & Gas	2219	35	3	10	14	7	69	\$31,886,211	1	\$462,119
BHP Billiton Petroleum (Deepwater)	2277	36	0	2	16	11	65	\$13,535,083	8	\$208,232
Newfield Exploration	1364	58	1	0	3	0	62	\$15,206,484	6	\$245,266
Magnum Hunter Production	2349	57	2	0	0	0	59	\$10,704,669	11	\$181,435
Chevron USA	78	14	0	1	17	24	56	\$25,100,817	2	\$448,229
Murphy Exploration & Production	2647	7	0	3	27	7	44	\$23,743,463	4	\$539,624
Union Oil Co. of California	3	14	3	5	11	4	37	\$24,103,471	3	\$651,445
Remington Oil and Gas	1704	36	0	0	0	0	36	\$5,007,649	30	\$139,101
BP Exploration & Production	2481	12	0	2	10	8	32	\$6,121,932	27	\$191,310
Ocean Energy	1777	6	0	4	12	4	26	\$12,334,586	9	\$474,407
Gryphon Exploration	2466	25	1	0	0	0	26	\$8,689,393	18	\$334,207
El Paso Production	236	25	0	0	0	0	25	\$9,999,281	15	\$399,971
Exxon Mobil	276	13	0	0	4	7	24	\$7,986,800	21	\$332,783
LLOG Exploration Offshore	2058	19	1	2	0	0	22	\$10,498,100	12	\$477,186

Appendix H

Sales 190 and 185

Comparison of Sales - Graphs

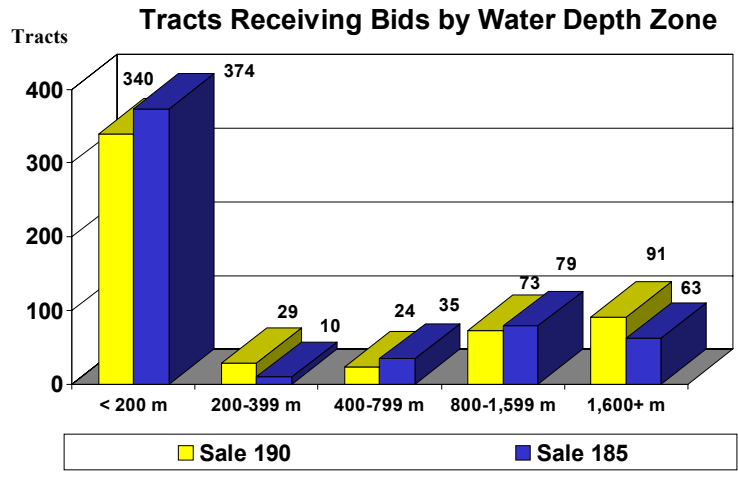
Sale 190 vs. Sale 185

Prepared by:
Economics Division, MMS

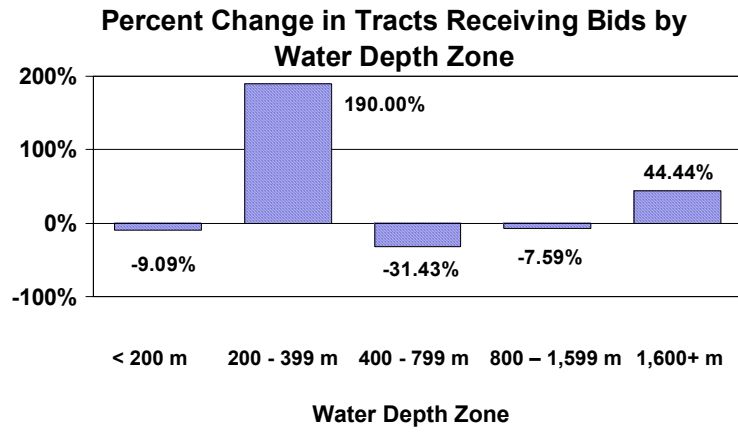
Sale 190 vs. Sale 185 (CGOM) Comparison of Results

- In aggregate, 557 tracts received high bids of \$368.76 MM in Sale 190 and 561 tracts received high bids of \$315.53 MM in Sale 185
- Bids per tract increased to 1.49 in Sale 190 from 1.41 in Sale 185
- Sale 190 had 340 tracts in < 200 m receiving high bids of \$173.82 MM vs. 374 tracts and high bids of \$175.19 MM in Sale 185
- Sale 190 had 217 tracts in > 200 m receiving high bids of \$194.94 MM vs. 187 tracts and high bids of \$140.34 MM in Sale 185

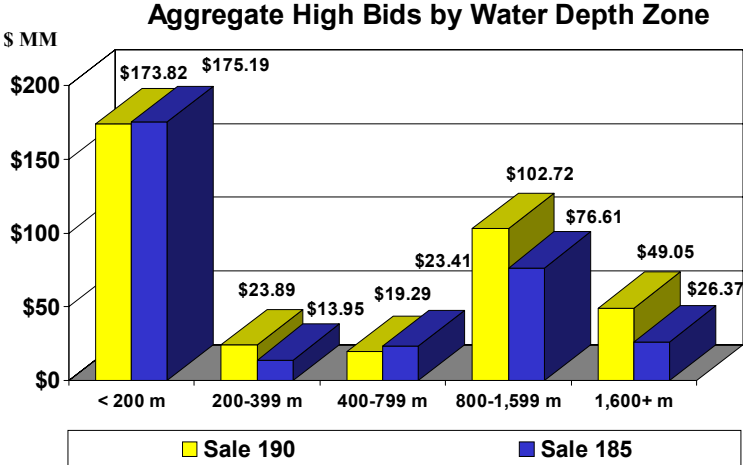
Sale 190 vs. Sale 185 - Tracts



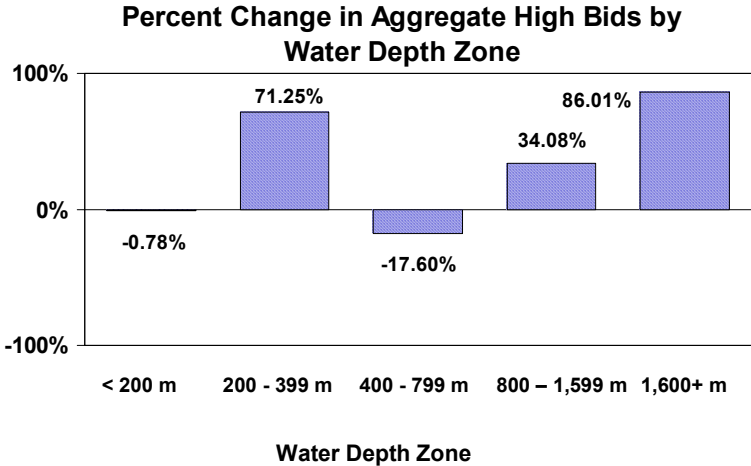
Sale 190 vs. Sale 185 - Tracts



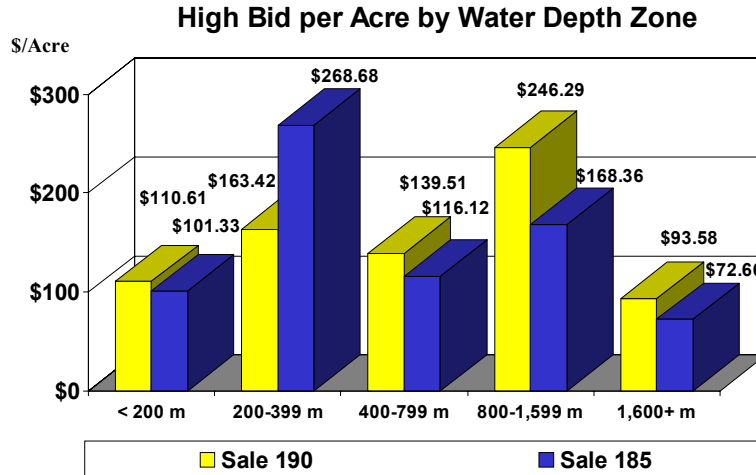
Sale 190 vs. Sale 185 - Bonuses



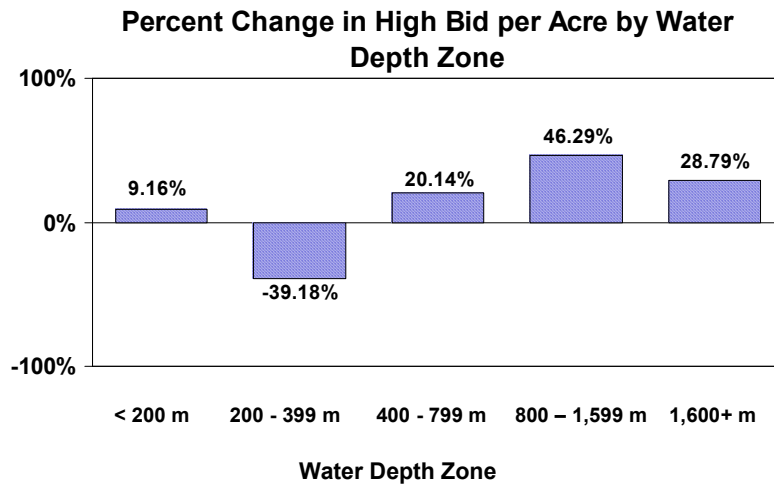
Sale 190 vs. Sale 185 - Bonuses



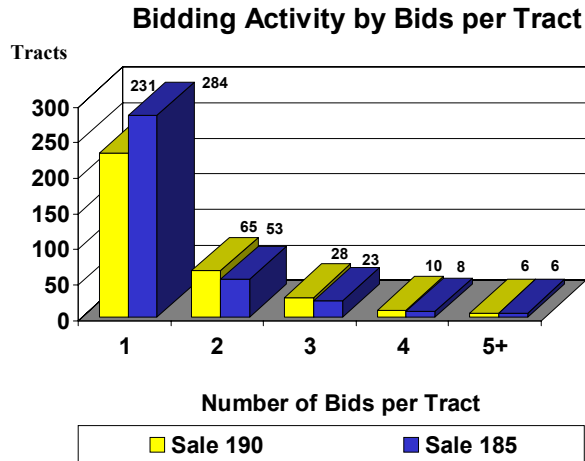
Sale 190 vs. Sale 185 - High Bid per Acre



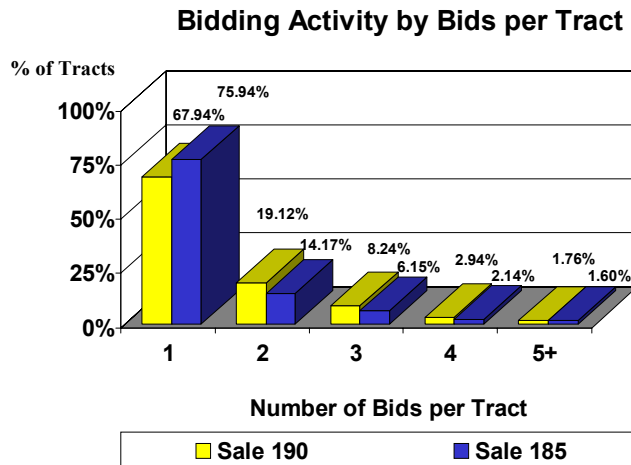
Sale 190 vs. Sale 185 - High Bid per Acre



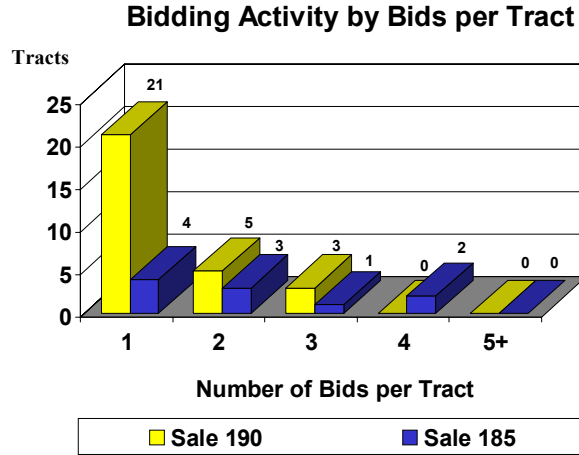
Sale 190 vs. Sale 185 - Tracts < 200 Meters Water Depth



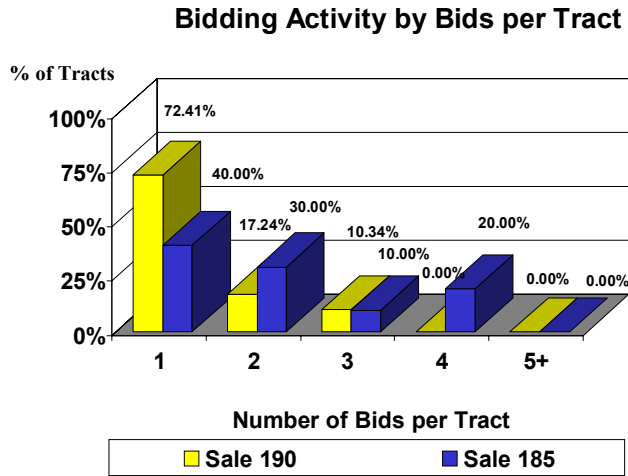
Sale 190 vs. Sale 185 - Tracts < 200 Meters Water Depth



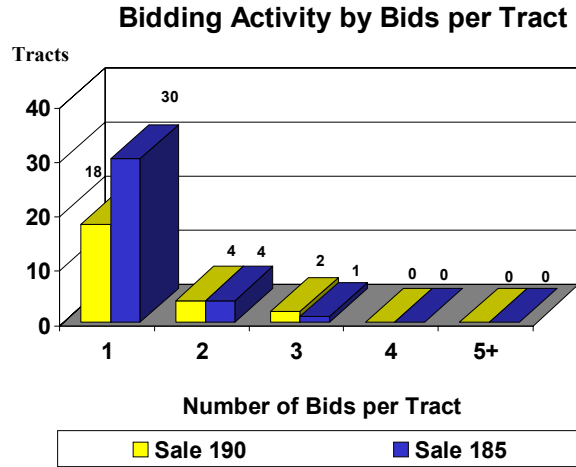
Sale 190 vs. Sale 185 - Tracts in 200 to 399 Meters Water Depth



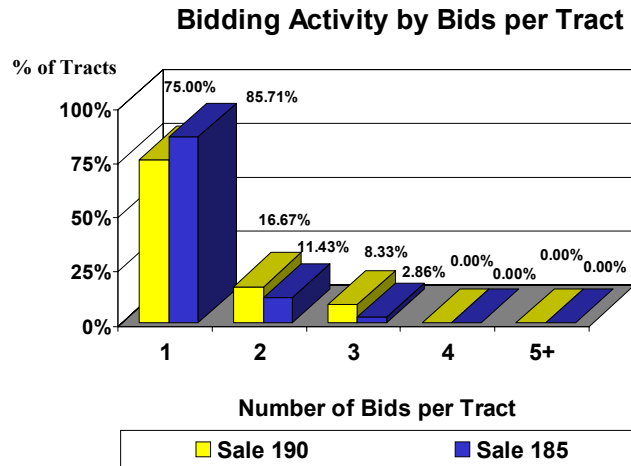
Sale 190 vs. Sale 185 - Tracts in 200 to 399 Meters Water Depth



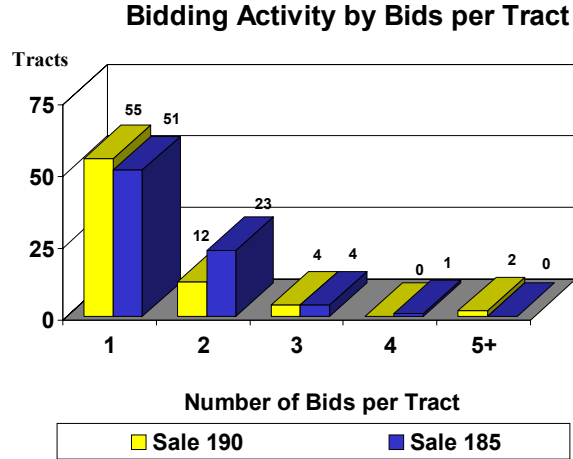
Sale 190 vs. Sale 185 - Tracts in 400 to 799 Meters Water Depth



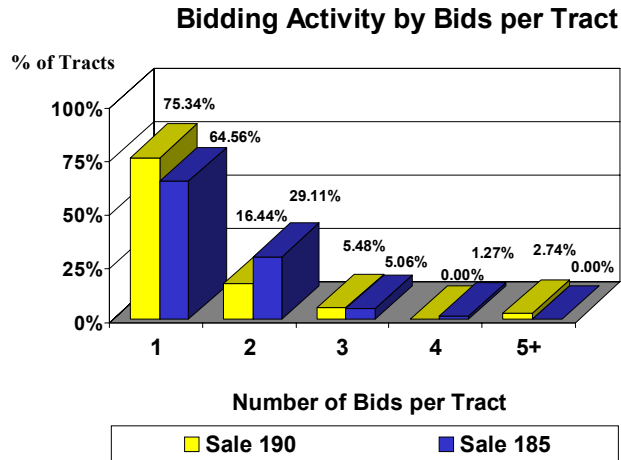
Sale 190 vs. Sale 185 - Tracts in 400 to 799 Meters Water Depth



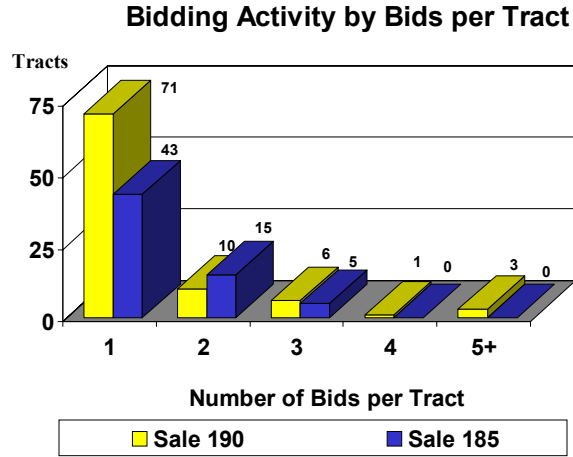
Sale 190 vs. Sale 185 - Tracts in 800 to 1,599 Meters Water Depth



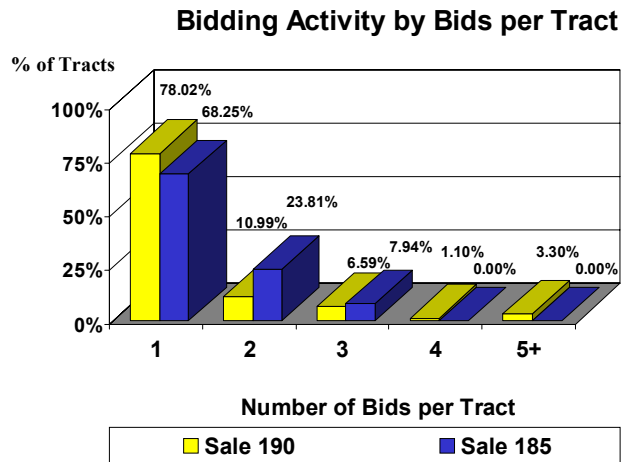
Sale 190 vs. Sale 185 - Tracts in 800 to 1,599 Meters Water Depth



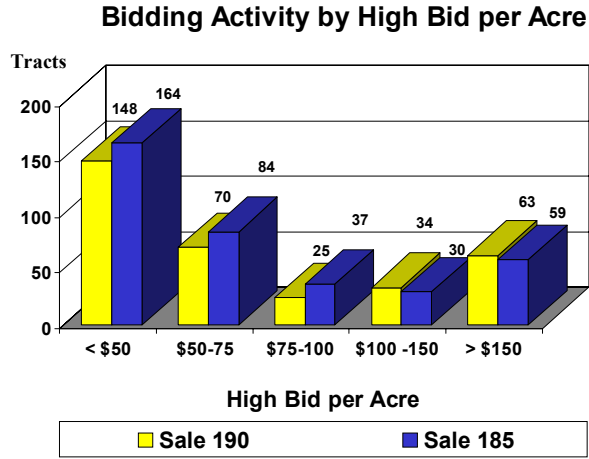
Sale 190 vs. Sale 185 - Tracts in 1,600+ Meters Water Depth



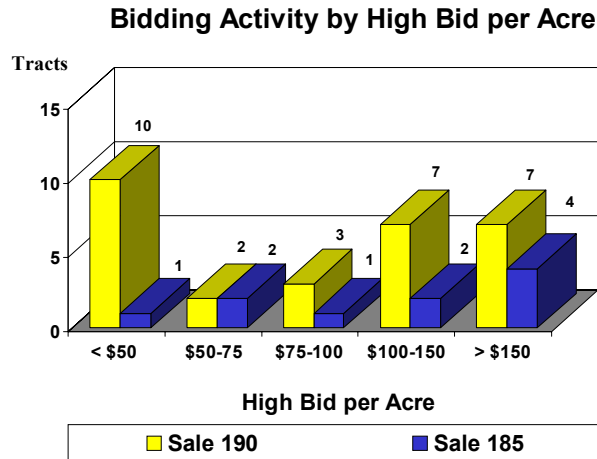
Sale 190 vs. Sale 185 - Tracts in 1,600+ Meters Water Depth



Sale 190 vs. Sale 185 - Tracts < 200 Meters Water Depth

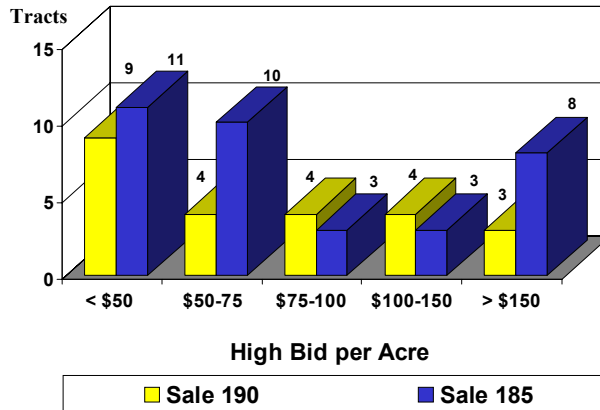


Sale 190 vs. Sale 185 - Tracts in 200 to 399 Meters Water Depth



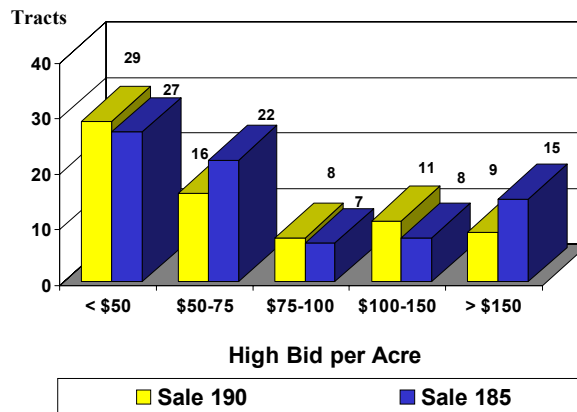
Sale 190 vs. Sale 185 - Tracts in 400 to 799 Meters Water Depth

Bidding Activity by High Bid per Acre

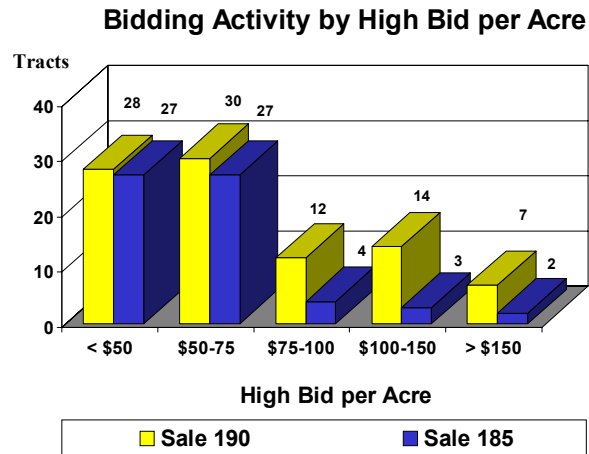


Sale 190 vs. Sale 185 - Tracts in 800 to 1,599 Meters Water Depth

Bidding Activity by High Bid per Acre



Sale 190 vs. Sale 185 - Tracts in 1,600+ Meters Water Depth



Appendix I

Sale 190

High Bid Rejections

Sale 190 Rejections

The high bids on 14 tracts were rejected in Sale 190. The rejected blocks received from one to three bids. By water depth category, the rejections were as follows: nine in less than 200 meters, one in 200 to 399 meters, one in 400 to 799 meters, and three in 800 to 1,599 meters.

Table I1. *Sale 190, Rejections in Water Depths Less than 200 Meters; Royalty Rate = 1/6; Potential Royalty Suspension Volume for Natural Gas from Deep (15,000 feet or more) Wells*

Tract No.	Bids	High Bid	ADV	RAM
G25935	2	\$633,000	\$1,600,000	\$837,617
G25936	1	\$210,000	\$600,000	Not Applicable
G25945	1	\$175,000	\$1,100,000	Not Applicable
G25977	1	\$283,914	\$1,100,000	Not Applicable
G25983	2	\$357,250	\$1,200,000	\$569,917
G26024	3	\$523,900	\$1,500,000	\$620,925
G26027	1	\$153,351	\$1,000,000	Not Applicable
G26028	1	\$165,561	\$410,000	Not Applicable
G26224	1	\$225,933	\$890,000	Not Applicable

Table I2. *Sale 190, Rejections in Water Depths of 200-399 Meters; Royalty Rate = 1/6; No Royalty Suspension Volume*

Tract No.	Bids	High Bid	ADV	RAM
G26249	1	\$737,700	\$2,500,000	Not Applicable

Table I3. *Sale 190, Rejections in Water Depths of 400-799 Meters; Royalty Rate = 1/8; 5 MMBOE Royalty Suspension Volume*

Tract No.	Bids	High Bid	ADV	RAM
G26303	1	\$236,400	\$1,200,000	Not Applicable

Table I4. *Sale 190, Rejection in Water Depths of 800-1,599 Meters;
Royalty Rate = 1/8; 9 MMBOE Royalty Suspension Volume*

Tract No.	Bids	High Bid	ADV	RAM
G26238	1	\$278,480	\$750,000	Not Applicable
G26242	1	\$278,480	\$590,000	Not Applicable
G26243	1	\$278,480	\$1,200,000	Not Applicable

Appendix J

Modifications to the Bid Adequacy Procedures

Bid Adequacy Procedures

[Federal Register: July 12, 1999 (Volume 64, Number 132)]
[Notices]
[Page 37560-37562]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr12jy99-108]

DEPARTMENT OF THE INTERIOR

Minerals Management Service

Modifications to the Bid Adequacy Procedures

AGENCY: Minerals Management Service (MMS), Interior.

ACTION: Notification of procedural change.

SUMMARY: The Minerals Management Service (MMS) has changed a criterion in its existing bid adequacy procedures for ensuring receipt of fair market value on Outer Continental Shelf (OCS) oil and gas leases. The change ensures consistency in the evaluation of tracts.

DATES: This modification is effective July 1, 1999.

FOR FURTHER INFORMATION CONTACT: Dr. Marshall Rose, Chief, Economics Division, at (703) 787-1536.

The revised bid adequacy procedures are described below.

What Definitions Apply to These Procedures?

The *MROV* is a dollar measure of a tract's expected net present value, if that tract is leased in the current sale. The calculation of the *MROV* allows for exploration and economic risk, and includes tax consequences, e.g., depletion of the cash bonus.

The *delayed MROV (DMROV)* is a measure used to determine the size of the high bid needed in the current sale to equalize it with the discounted sum of the bonus and royalties expected in the next sale, less the foregone royalties from the current sale. The bonus for the next sale is computed as the *MROV* associated with the delay in leasing under the projected economic, engineering, and geological leasing receipts conditions, including drainage. If the high bid exceeds the *DMROV*, then the leasing receipts from the current sale are expected to be greater than those from the next sale, even in cases in which the *MROV* exceeds the high bid.

The *Adjusted Delayed Value (ADV)* is the minimum of the MROV and the DMROV.

The *RAM* is the revised arithmetic average measure of the MROV and all qualified bids on a tract that are equal to at least 25 percent of the high bid.

Anomalous bids are all but the highest bid submitted for a tract by the same company (bidding alone or jointly with another company), parent, or subsidiary. These bids are excluded when applying the number of bids rule or any other bid adequacy measure.

Legal bids are those bids which comply with the MMS regulations (30 CFR 256) and the Notice of Sale, e.g., equal or exceed the specified minimum bid. Any illegal bid will be returned to the bidder.

Qualified bids are those bids that are legal and not anomalous.

MONTCAR is a probabilistic, cash flow computer simulation model used to conduct a resource-economic evaluation that results in an estimate of the expected net present value of a tract (or prospect).

Nonviable tracts or prospects are those geographic or geologic configurations of hydrocarbons that are estimated to be uneconomic to produce with the costs and anticipated future prices used in the analysis.

Within the context of our bid adequacy procedures, the term “*unusual bidding patterns*” typically refers to a situation in which two or more companies bid against each other more often than would normally be expected. Companies could agree to bid against each other on certain sets of tracts in a sale so that the number of bids rule would apply for bid acceptance. Other forms of unusual bidding patterns exist as well, and generally involve anti-competitive practices, e.g., if it appears that companies are attempting to avoid bidding against each other in a sale on a set of prospective tracts.

A *confirmed tract* is a previously leased tract having a well(s) which encountered hydrocarbons and may have produced. It contains some oil and/or gas resources whose volume may or may not be known.

A *development tract* is a tract which has nearby productive (past or currently capable) wells with indicated hydrocarbons and which is not interpreted to have a productive reservoir extending under the tract. There should be evidence supporting the interpretation that at least part of the tract is on the same general structure as the proven productive well.

A *drainage tract* is a tract which has a nearby well which is capable of producing oil or gas, and the tract could incur drainage if and when such a well is placed on production. The reservoir, from which the nearby well is capable of producing, is interpreted to extend under the drainage tract to some extent.

A *wildcat tract* is a tract which has neither nearby productive (past or currently capable) wells, nor is interpreted to have a productive reservoir extending under the tract. It has high risk in addition to sparse well control.

Water depth categories for bid adequacy purposes in the Gulf of Mexico are designated as (1) less than 800 meters and (2) 800 meters or more.

If different water depth categories are used for a Gulf of Mexico sale, they will be specified in the sale's final notice. For areas other than the Gulf of Mexico, all tracts will be considered to be in the same water depth category, unless an alternative is specified in the final notice of sale.

What Problem Is Addressed by the Change?

In any OCS lease sale, a limited number of tracts may be reclassified from drainage or development (DD) in Phase 1 of the bid evaluation process to confirmed or wildcat (CW) in Phase 2. (The MMS reclassifies a tract if additional Phase 2 analysis supports a classification different than the one assigned the tract in Phase 1 of the evaluation.) However, under the old bid adequacy procedures, a tract classified as CW in Phase 1 was evaluated under different criteria than a tract that was reclassified as CW in Phase 2. This change ensures the consistent treatment of similarly classified tracts whether they are evaluated in Phase 1 or Phase 2.

What Change Is Being Made?

In Phase 1 of the bid adequacy procedures, the MMS classifies tracts as either CW or DD based on information available at the time of sale. Under the old (February 10, 1999) guidelines, tracts within designated water depth categories that were reclassified from DD to CW in Phase 2 only had to have a third largest bid within 50 percent of the high bid to be accepted. Now, DD tracts reclassified as CW tracts must satisfy the same criteria for acceptance that would have had to been met if they were classified as CW in Phase 1.

To ensure consistency in evaluations, the following change is being made. In Phase 1, for CW tracts receiving three-or-more qualified bids, acceptance under the number of bids rule will apply only if the third largest bid is within 50 percent of the high bid, and if the high bid is in the top 75 percent of high bids on a per acre basis for all three-or-more-bid tracts within designated water depth categories. In Phase 2 of the bid evaluation process, DD tracts that have been reclassified as CW will be subject to the same screening criteria that the CW tracts with three-or-more bids had to meet in Phase 1.

How Are Bids Evaluated?

During the bid review process, we conduct evaluations in a two-phased procedure for bid adequacy determination. We also review bids to ensure that they are for at least the minimum amount specified in the notice of sale and that unusual bidding patterns are not present.

What Happens in Phase 1 of the Bid Adequacy Procedures?

In Phase 1, we partition the tracts receiving bids into three general categories:

1. Those tracts with three-or-more bids, on which competitive market forces can be used to assure fair market value;
2. Those tracts which we identify as being nonviable based on adequate data and maps; and
3. Those tracts which we identify as being viable and on which we have the most detailed and reliable data, including tracts classified as DD.

What Phase 1 Rules Are Applied to All Tracts Receiving Bids?

Six Phase 1 rules are applied to all tracts receiving bids:

1. We accept the highest qualified bid on viable CW tracts receiving three-or-more qualified bids if the third largest bid on the tract is at least 50 percent of the highest qualified bid and if the high bid per acre ranks in the top 75 percent of high bids for all three-or-more-bid tracts within a specified water depth category.
2. We accept the highest qualified bid on CW tracts that we determine to be nonviable.
3. We pass to Phase 2 all tracts that require additional information to make a determination on viability or tract type.
4. We pass to Phase 2 all viable CW tracts receiving one or two qualified bids.
5. We pass to Phase 2 all viable CW tracts receiving three-or-more qualified bids if either the third largest such bid is less than 50 percent of the highest qualified bid or if the high bid per acre ranks in the lowest 25 percent of high bids for all three-or-more-bid tracts in the specified water depth category.
6. We pass to Phase 2 all DD tracts.

How Is the Percentile Ranking of a Tract's High Bid Calculated?

The percentile ranking of a tract's high bid is calculated by multiplying 100 times the ratio of the numerical ordering of the three-or-more-bid tract's high bid to the total number of all three-or-more-bid tracts in the designated water depth. For example, suppose there are 21 total tracts identified in Phase 1 as receiving three-or-more-bids in the designated water depth category of at least 800 meters. All tracts in this set having a high bid among the top 15 high bids would satisfy the 75 percent requirement; the 15th ranked high bid would represent the 71st percentile, i.e., $(100 * (15/21) = 71)$.

Can any Other Procedures Be Used in Phase 1 to Ensure the Receipt of Fair Market Value?

In ensuring the integrity of the bidding process, the Regional Director may identify an unusual bidding pattern at any time during the bid review process, but before a tract's high bid is accepted. If the finding is documented, the Regional Director has discretionary authority, after consultation with the Solicitor, to pass those identified tracts to Phase 2 for further analysis. The Regional Director may eliminate all but the largest of the unusual bids from consideration when applying any bid adequacy rule, may choose not to apply a bid adequacy rule, or may reject the tract's highest qualified bid.

How Long Does it Take To Complete the Phase 1 Procedures?

These procedures are generally completed within 3 weeks of the bid opening. All the leases that will be awarded as a result of the Phase 1 analysis are announced at the end of this period.

How Long Do the Phase 2 Procedures Take?

The Phase 2 bid adequacy determinations are normally completed sequentially over a period ranging between 21 and 90 days after the sale. Leases are awarded as the analysis of bids is completed over this time period. The total evaluation period can be extended, if needed, at the Regional Director's discretion (61 FR 34730, July 3, 1996).

What are the Initial Steps of the Bid Adequacy Process that Are Followed in Phase 2?

Activities to assess bids are undertaken by analyzing, partitioning, and evaluating tracts in two steps:

1. Further mapping and/or analysis is performed to review, modify, and finalize viability determinations and tract classifications.
2. Tracts we identify as being viable must undergo an evaluation to determine if fair market value has been received.

What Decision Rules Are Applied in Phase 2 of the Bid Evaluation Process?

After completing the initial two steps, a series of rules and procedures are followed.

1. We accept the highest qualified bid on newly classified CW tracts having three-or-more qualified bids if its third largest bid is at least 50 percent of the highest qualified bid and if its high bid per acre ranks in the top 75 percent of high bids for all three-or-more-bid tracts that reside within its specified water depth category.
2. We accept the highest qualified bid on all tracts determined to be nonviable.
3. We determine whether any categorical fair market evaluation technique(s) will be used.

If so we:

- A. Evaluate, define, and identify the appropriate threshold measure(s) for bid acceptance.
 - B. Accept all tracts whose individual measures of bid adequacy satisfy the threshold categorical requirements.
4. We conduct a full-scale evaluation, which could include the use of MONTCAR, on all remaining tracts passed to Phase 2 and still awaiting an acceptance or rejection decision.

What Subset of Tracts Comprise the “Remaining Tracts” That Still Need a Phase 2 Acceptance or Rejection Decision?

The remaining tracts include tracts not accepted by a categorical rule that we classify as:

- 1. DD tracts, or
- 2. CW tracts that are viable and received:
 - A. One or two qualified bids, or
 - B. Three-or-more qualified bids, if either its third largest bid is less than 50 percent of the highest qualified bid or the high bid is in the bottom 25 percent of all three-or-more-bid CW tracts within a designated water depth category.

What Procedures Are Followed for Evaluating the Adequacy of Bids on These Tracts?

For these tracts we:

- 1. Accept the highest qualified bid, if it equals or exceeds the tract's ADV.
- 2. Reject the highest qualified bid on DD tracts receiving three-or-more qualified bids, if the high bid is less than one-sixth of the tract's MROV.
- 3. Reject the highest qualified bid on DD tracts receiving one or two qualified bids and on CW tracts receiving only one qualified bid, if the high bid is less than the tract's ADV.

What Happens Next to the Tracts Still Awaiting an Acceptance or Rejection Decision?

At this stage of the process, the tracts still awaiting a decision consist of those having a highest qualified bid that is less than the ADV that are either:

- 1. DD tracts receiving three-or-more qualified bids with the highest bid exceeding one-sixth of the tract's MROV or
- 2. Viable CW tracts that receive two-or-more qualified bids.

From these tracts, we select the following:

- A. DD tracts having three-or-more qualified bids with the third largest bid being at least 25 percent of the highest qualified bid, and
- B. CW tracts having two-or-more qualified bids with the second largest bid being at least 25 percent of the highest qualified bid.

We then compare the highest qualified bid on each of these selected tracts to the tract's RAM. For all these tracts, we:

- 1. Accept the highest qualified bid, if the high bid equals or exceeds the tract's RAM, or
- 2. Reject the highest qualified bid, if the high bid is less than the tract's RAM.

Finally, we identify those tracts that are still awaiting a decision, but did not meet the requirements for comparison to the RAM and we reject the high bid on these tracts.

At this point, the acceptance or rejection decisions are made on all the high bids in the sale. The successful bidders are notified and their leases are awarded after the full payment of the high bid is received. The unsuccessful bidders are notified as well and their bid deposits are returned. Unsuccessful bidders may appeal a bid rejection decision as described in 30 CFR 256.47(e)(3).

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MMS *Securing Ocean Energy & Economic Value for America*



The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.