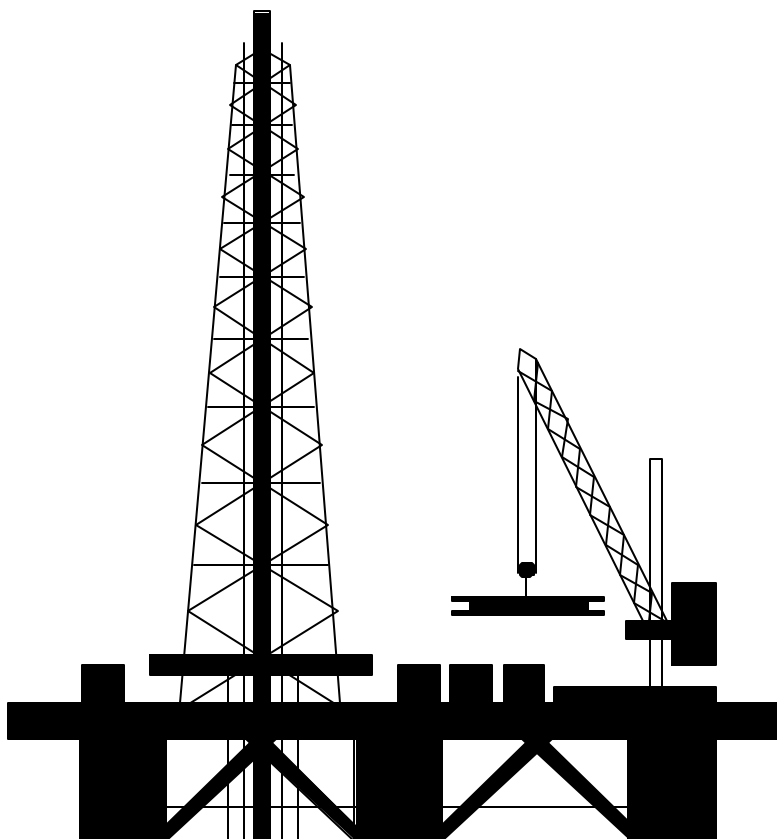


# Western Gulf of Mexico Sale 184 August 21, 2002

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Sale Summary, Bidding Results and  
Related Analyses

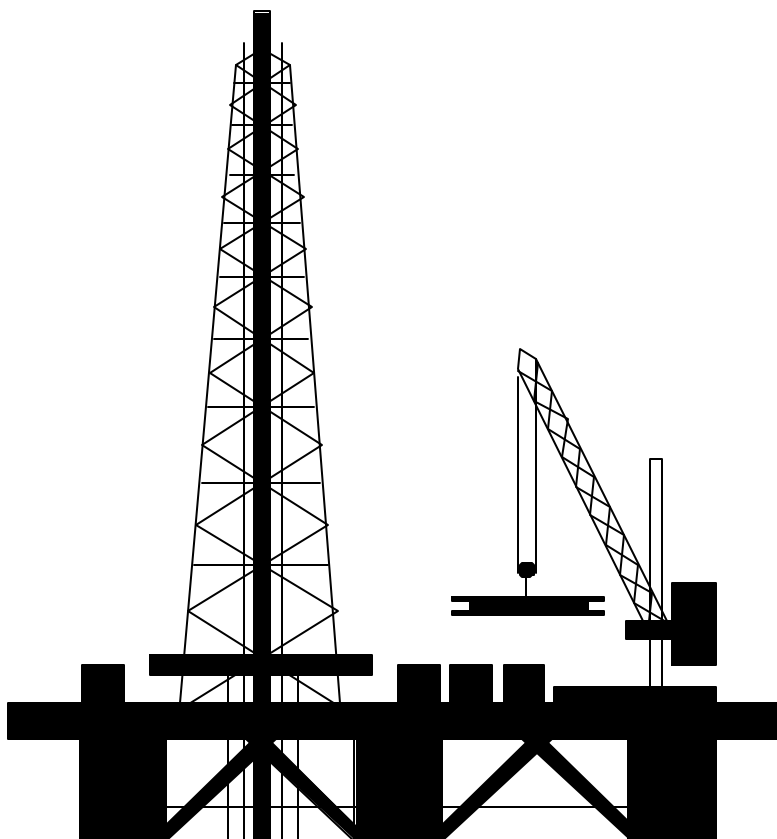


# Western Gulf of Mexico Sale 184 August 21, 2002

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Sale Summary, Bidding Results and  
Related Analyses

By  
Larry Slaski



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# Western Gulf of Mexico

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## Sale 184 August 21, 2002 Sale Overview

Sale 184 in the Western Gulf of Mexico (WGOM) was the second sale in that 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, 323 tracts received 391 bids (an average of 1.21 bids per tract). Tracts that were in water depths eligible for deepwater royalty relief totaled 159, while 142 were in water depths eligible for shallow water, deep gas royalty relief.

### Bidding Results

Sale 184, in terms of the number of tracts receiving bids, was about 1 percent larger than WGOM Sale 180, held in 2001. The decrease in aggregate high bids in Sale 184 compared to Sale 180 was about 9 percent. In Sale 184, 323 tracts received 391 bids with high bids totaling \$151,265,255.

Bidding results by water depth zone are summarized in Table 1 and 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.	142	\$38.15	159	1.12
200 - 399 m.	22	\$9.79	28	1.27
400 - 799 m.	32	\$34.01	58	1.81
800 - 1,599 m.	59	\$22.61	61	1.03
1,600+ m.	68	\$46.71	85	1.25
Total	323	\$151.27	391	1.21

Bidding activity in Sale 184 resulted in a slight increase in the number of tracts receiving bids and number of bids, as well as a small decrease in aggregate high bids compared to the previous WGOM sale (Sale 180, August 22, 2001). In Sale 180, 320 tracts received 386 bids, whereas 323 tracts received 391 bids in Sale 184, resulting in increases of 1 percent in each parameter. In addition, the sum of high bids submitted on tracts receiving bids in Sale 184 decreased by about 9 percent compared to Sale 180 (\$151.27 million v. \$165.57 million). The amount of competition for tracts was similar to other recent WGOM lease sales. About 84 percent of tracts

received single bids. Two-bid tracts accounted for the next highest percent of tracts receiving bids (about 12 percent). 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*<sup>1</sup>

<b>Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	271	83.90%	\$88.18	58.29%
2	39	12.07%	\$34.19	22.60%
3	10	3.10%	\$17.84	11.79%
4	3	0.93%	\$11.05	7.31%
5 or more	0	0.00%	\$0.00	0.00%
Total	323	100.00%	\$151.27	100.00%

Sale 184 was typical of sales in the WGOM as more tracts received high bids less than \$50 per acre than those receiving bids greater than that amount. In Sale 184, tracts with high bids greater than \$150 per acre accounted for about 44 percent of aggregate high bids, an amount lower than that observed in Sale 180. 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*

<b>High Bid per Acre</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
< \$50	176	54.49%	\$34.70	22.94%
\$50 - 74.99	74	22.91%	\$25.52	16.87%
\$75 - 99.99	19	5.88%	\$8.49	5.61%
\$100 - 149.99	24	7.43%	\$16.69	11.03%
\$150+	30	9.29%	\$65.87	43.54%
Total	323	100.00%	\$151.27	100.00%

<sup>1</sup> In the tables throughout this report, percent totals may not add exactly to 100.00% because of rounding. In addition, other totals in the tables, e.g., high bids, also may differ slightly from the text because of rounding.

## Bidding on Royalty Suspension Volume Tracts

In water depths of less than 200 meters, in which leases are eligible for royalty suspension volumes of 20 billion cubic feet for natural gas from wells 15,000 feet or more deep, 142 tracts received bids in Sale 184 compared to 125 tracts in Sale 180. However, although there was about a 14 percent increase in tracts receiving bids in this water depth category, their high bids were about 18 percent lower than those from Sale 180.

A total of 32 tracts in 400 - 799 meters that are eligible for royalty suspension volumes of 5 million barrels of oil equivalent (MMBOE) received bids, as did 59 tracts in 800 - 1,599 meters that are eligible for royalty suspension volumes of 9 MMBOE, and 68 tracts in 1,600 meters or more that are eligible for royalty suspension volumes of 12 MMBOE. These tracts accounted for 49 percent of the tracts in the sale receiving bids and 68 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 184 was 10 percent lower and their associated high bids were 8 percent lower than those received in Sale 180. These results are interesting because in 400 - 799 meters, no royalty relief was offered in Sale 180, yet fewer tracts received, on average, lower bids in that water depth zone in Sale 184 with a royalty suspension volume of 5 MMBOE per lease. However, in Sale 184, the average high bid in 1,600 meters or more was much higher than in Sale 180.

In the water depth categories between 200 - 399 meters, bidding activity in Sale 184 was similar to the level observed in Sale 180 for tracts receiving bids, but the Sale 180 aggregate high bids were lower. In Sales 184 and 180, tracts in 200 - 399 meters were not eligible for automatic royalty suspension volumes.

Table 4.—*Bidding Results by High Bid per Acre: Sale 180 v. Sale 184*

Water Depth	Sale 180	Sale 184
<200 m.	\$67.43	\$51.68
200 - 399 m.	\$69.95	\$77.25
400 - 799 m.	\$232.17	\$184.50
800+ m.	\$74.88	\$95.85

These results suggest that industry continues to perceive significant economic potential to exist in all water depths in the WGOM as the average high bids continue to be 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 72 tracts were accepted in Phase 1 of Sale 184. High bids were accepted on 56 tracts in water depths less than 200 meters, 2 tracts in 200 - 399 meters, and 14 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 22 percent of the tracts, representing 11 percent of the high bids.

High bids accepted in Phase 1 were in one category of tract. All Phase 1 acceptances were wildcat and confirmed tracts determined to be non-viable. The Sale 184, Phase 1 results by number of bids and high bid per acre are presented in Tables 5 and 6, respectively.

Table 5.—Phase 1 Results by Number of Bids

Bids	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
1	70	97.22%	\$15.73	98.56%
2	2	2.78%	\$0.23	1.44%
3+	0	0.00%	\$0.00	0.00%
Total	72	100.00%	\$15.96	100.00%

Table 6.—Phase 1 Results by High Bid per Acre

High Bid per Acre	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
< \$50	55	76.39%	\$8.56	53.63%
\$50 - 74.99	12	16.67%	\$3.63	22.74%
\$75 - 99.99	2	2.78%	\$0.57	3.57%
\$100 - 149.99	1	1.39%	\$0.69	4.32%
\$150+	2	2.78%	\$2.51	15.73%
Total	72	100.00%	\$15.96	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 184 bid evaluation process on multi-bid tracts that have high bids that do not exceed the Government's Adjusted Delayed Value (ADV) of the tract. 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 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 184 was about \$15 million, and the majority was less than \$2 million. These values are not unreasonable relative to high bids observed in this sale.

In Sale 184, 13 tracts classified as wildcat and confirmed receiving three or more bids were passed to Phase 2 for evaluation. These tracts, potentially, could have their bid acceptance or rejection decision based on the RAM. After adjusting the number of bids to include only those bids that are at least 25 percent of a tract's high bid, 10 tracts could be eligible for a decision based on the RAM. These 10 tracts would require ADV's of around \$0.33 million to \$15 million for rejection. For one tract (G24479) in Sale 184, the RAM was the decision rule that allowed the high bid to be accepted. 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 184 decreased to 44 from the 50 active in Sale 180, the previous WGOM sale. Fifteen companies submitted bids (either solo or jointly) on 10 or more tracts. Kerr-McGee Oil & Gas was the most active company in terms of bids submitted with 53. The most apparent high bids, 45, were submitted by two companies, Kerr-McGee Oil & Gas and Amerada Hess. Shell Offshore had the greatest aggregate high bids with a total of \$40.99 million.

With about 16 percent of the tracts receiving bids in the sale being multi-bid tracts, two firms (BHP Petroleum (Deepwater) and Gryphon Exploration) that submitted 10 or more bids were the high bidder on every bid they submitted. For firms submitting 20 or more bids, the most successful bidder was Pioneer Natural Resources, with 40 high bids out of the 42 bids that it offered.

The 10 most active bidders in terms of total amount of high bids are listed in Table 7. 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.

About half of the companies that were most active in WGOM Sale 180 (August 22, 2001) continued to be among the most active in Sale 184. Although the magnitude of the high bids was a bit lower in Sale 184 than in Sale 180, companies with high levels of interest in the WGOM continued to participate at levels similar to recent sales.

Appendix G presents a listing of bidding by the most active companies in Sales 184 and 180.



Table 7.—*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
Shell Offshore	\$40,993,458	39 (4)	35 (4)
Amerada Hess	\$14,617,930	52 (2)	45 (1)
Kerr-McGee Oil & Gas	\$13,072,320	53 (1)	45 (1)
Pioneer Natural Resources	\$10,182,879	42 (3)	40 (3)
LLOG Exploration Offshore	\$9,251,000	21 (5)	19 (5)
Dominion Exploration	\$7,116,750	3 (32)	2 (30)
BHP Petroleum (Deepwater)	\$4,918,622	18 (7)	18 (6)
Gryphon Exploration	\$4,478,468	13 (11)	13 (9)
Murphy Exploration	\$3,621,000	11 (13)	8 (14)
Newfield Exploration	\$3,515,100	7 (18)	5 (19)

### **Sale 184 v. Sale 180**

The results of Sale 184 were similar to the results of Sale 180 in many categories of bidding activity. The average high bid per acre was \$86.01 in Sale 184 as compared with \$92.49 in Sale 180. In Sale 184, 323 tracts received 393 bids, thus slightly exceeding the 320 tracts that received 386 bids in Sale 180. In addition, the average number of bids per tract, 1.21, was the same in both sales.

The amount of bidding activity in deep water in Sale 184 decreased compared to Sale 180. Specifically, the number of tracts potentially eligible for deepwater royalty suspension volumes (water depth of 400 meters or more) receiving bids decreased by about 10 percent and the high bids on these tracts decreased 8 percent. Appendix H presents a graphical comparison of sale results.

In Sale 184, four tracts with high bids that were rejected in Sale 180 received bids. In addition, there were three rejected tracts in Sale 180 with aggregate high bids of \$680,800 that did not receive bids in Sale 184.

The high bids on the four tracts with bids increased from \$1,263,415 in Sale 180 to \$13,481,690 in Sale 184, an increase in high bids of 967 percent. The number of bids on these four tracts increased from 4 to 9, a gain of 125 percent. The high bids on all four of the tracts were accepted in Sale 184. 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

Western Gulf of Mexico  
Outer Continental Shelf  
Oil and Gas Lease Sale 184

## **Bidding Summary**

# Western Gulf of Mexico OCS Oil and Gas Lease Sale 184

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## 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	164	159	323
Acres Receiving Bids	864,892.28	907,578.63	1,772,470.91
Sum of High Bids	\$47,936,666	\$103,328,589	\$151,265,255
Sum of All Bids	\$54,282,791	\$127,269,174	\$181,551,965
Total Number of Bids	187	204	391
Average Bids	1.14	1.28	1.21
Companies Bidding	36	25	44
Highest Bid per Tract	\$2,101,587	\$8,353,500	\$8,353,500
- Tract Number	G24447	G24482	G24482
- Number of Bids	2	3	3
Highest Bid per Acre	\$491.58	\$1,450.26	\$1,450.26
- Tract Number	G24307	G24482	G24482
- Number of Bids	2	3	3
Most Bids	2	4	4
- Tract Number	23 tracts	G24479 G24483 G24593	G24479 G24483 G24593

# Western Gulf of Mexico OCS Oil and Gas Lease Sale 184

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## Sale Day Statistics for 16 2/3% Royalty Rate Tracts

	<u>16 2/3% w/RS<sup>1</sup></u>	<u>16 2/3% w/ROY<sup>2</sup></u>	<u>16 2/3% Total</u>
Tracts Receiving Bids	142	22	164
Acres Receiving Bids	738,172.28	126,720.00	864,892.28
Sum of High Bids	\$38,148,084	\$9,788,582	\$47,936,666
Sum of All Bids	\$42,394,270	\$11,888,521	\$54,282,791
Total Number of Bids	159	28	187
Average Bids	1.12	1.27	1.14
Companies Bidding	29	12	36
Highest Bid per Tract	\$1,600,000	\$2,101,587	\$2,101,587
- Tract Number	G24307	G24447	G24447
- Number of Bids	2	2	2
Highest Bid per Acre	\$491.58	\$364.86	\$491.58
- Tract Number	G24307	G24447	G24307
- Number of Bids	2	2	2
Most Bids	2	2	2
- Tract Number	17 tracts	6 tracts	23 tracts

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<sup>1</sup> "16 2/3% 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.

<sup>2</sup> "16 2/3% 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.

# Western Gulf of Mexico

## OCS Oil and Gas Lease Sale 184

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### Sale Day Statistics for 12 1/2% Royalty Rate Tracts

	<u>12 1/2% w/RS5<sup>1</sup></u>	<u>12 1/2% w/RS3<sup>2</sup></u>	<u>12 1/2% w/RS4<sup>3</sup></u>	<u>12 1/2% Royalty</u>
Tracts Receiving Bids	32	59	68	159
Acres Receiving Bids	184,320.00	335,509.59	387,749.04	907,578.63
Sum of High Bids	\$34,007,628	\$22,608,685	\$46,712,276	\$103,328,589
Sum of All Bids	\$46,510,616	\$23,063,585	\$57,694,973	\$127,269,174
Total Number of Bids	58	61	85	204
Average Bids	1.81	1.03	1.25	1.28
Companies Bidding	17	15	8	25
Highest Bid per Tract	\$8,353,500	\$2,301,587	\$5,701,587	\$8,353,500
- Tract Number	G24482	G24547	G24549	G24482
- Number of Bids	3	1	2	3
Highest Bid per Acre	\$1,450.26	\$399.58	\$989.86	\$1,450.26
- Tract Number	G24482	G24547	G24549	G24482
- Number of Bids	3	1	2	3
Most Bids	4	2	4	4
- Tract Number	G24479 G24483	G24432 G24495	G24593	G24479 G24483 G24593

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<sup>1</sup> “12 1/2% 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.

<sup>2</sup> “12 1/2% 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.

<sup>3</sup> “12 1/2% 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

Western Gulf of Mexico  
Outer Continental Shelf  
Oil and Gas Lease Sale 184

**Bidding by Number of Bids**

# Sale 184

## *All Tracts*

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	271	83.90%	\$88.18	58.29%
2	39	12.07%	\$34.19	22.60%
3	10	3.10%	\$17.84	11.79%
4	3	0.93%	\$11.05	7.31%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	323	100.00%	\$151.27	100.00%

## *Tracts with 1/6 Royalty Rate*

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	141	85.98%	\$35.08	73.18%
2	23	14.02%	\$12.85	26.82%
3	0	0.00%	\$0.00	0.00%
4	0	0.00%	\$0.00	0.00%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	164	100.00%	\$47.94	100.00%

## *Tracts with 1/8 Royalty Rate*

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	130	81.76%	\$53.10	51.39%
2	16	10.06%	\$21.34	20.65%
3	10	6.29%	\$17.84	17.26%
4	3	1.89%	\$11.05	10.70%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	159	100.00%	\$103.33	100.00%

## Sale 184, by Water Depth Category

*1/6 Royalty (<200 meters; 20 billion cubic feet Royalty Suspension Volume [RSV] for gas from deep wells, i.e., drilling depth of 15,000 feet or more)*

No. Of Bids	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
1	125	88.03%	\$29.66	77.76%
2	17	11.97%	\$8.49	22.24%
3	0	0.00%	\$0.00	0.00%
4	0	0.00%	\$0.00	0.00%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	142	100.00%	\$38.15	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	16	72.73%	\$5.42	55.37%
2	6	27.27%	\$4.37	44.63%
3	0	0.00%	\$0.00	0.00%
4	0	0.00%	\$0.00	0.00%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	22	100.00%	\$9.79	100.00%



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

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	17	53.13%	\$6.35	18.68%
2	6	18.75%	\$4.75	13.97%
3	7	21.88%	\$15.15	44.55%
4	2	6.25%	\$7.75	22.80%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	32	100.00%	\$34.01	100.00%

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

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	57	96.61%	\$22.06	97.57%
2	2	3.39%	\$0.55	2.43%
3	0	0.00%	\$0.00	0.00%
4	0	0.00%	\$0.00	0.00%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	59	100.00%	\$22.61	100.00%

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

<b>No. Of Bids</b>	<b>Tracts</b>	<b>Percent of Tracts</b>	<b>High Bids (\$MM)</b>	<b>Percent of High Bids</b>
1	56	82.35%	\$24.68	52.84%
2	8	11.76%	\$16.04	34.33%
3	3	4.41%	\$2.69	5.76%
4	1	1.47%	\$3.30	7.07%
<u>5+</u>	<u>0</u>	<u>0.00%</u>	<u>\$0.00</u>	<u>0.00%</u>
Total	68	100.00%	\$46.71	100.00%

# Appendix C

Western Gulf of Mexico  
Outer Continental Shelf  
Oil and Gas Lease Sale 184

**Bidding by High Bid per Acre**

## Sale 184

### *All Tracts*

High Bid/acre	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
< \$50	176	54.49%	\$34.70	22.94%
\$50 - 74.99	74	22.91%	\$25.52	16.87%
\$75 - 99.99	19	5.88%	\$8.49	5.61%
\$100 - 149.99	24	7.43%	\$16.69	11.03%
<u>\$150+</u>	<u>30</u>	<u>9.29%</u>	<u>\$65.87</u>	<u>43.54%</u>
Total	323	100.00%	\$151.27	100.00%

### *Tracts with 1/6 Royalty Rate*

High Bid/acre	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
< \$50	110	67.07%	\$18.26	38.09%
\$50 - 74.99	24	14.63%	\$7.92	16.53%
\$75 - 99.99	12	7.32%	\$5.09	10.61%
\$100 - 149.99	12	7.32%	\$8.32	17.35%
<u>\$150+</u>	<u>6</u>	<u>3.66%</u>	<u>\$8.35</u>	<u>17.43%</u>
Total	307	100.00%	\$47.94	100.00%

### *Tracts with 1/8 Royalty Rate*

High Bid/acre	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
< \$50	66	41.51%	\$16.44	15.91%
\$50 - 74.99	50	31.45%	\$17.60	17.03%
\$75 - 99.99	7	4.40%	\$3.40	3.29%
\$100 - 149.99	12	7.55%	\$8.38	8.11%
<u>\$150+</u>	<u>24</u>	<u>15.09%</u>	<u>\$57.51</u>	<u>55.66%</u>
Total	159	100.00%	\$103.33	100.00%

## Sale 184, by Water Depth Category

*1/6 Royalty (<200 meters; 20 billion cubic feet Royalty Suspension Volume [RSV] for gas from deep wells, i.e., drilling depth of 15,000 feet or more)*

High Bid/acre	Tracts	Percent of Tracts	High Bids (\$MM)	Percent of High Bids
< \$50	101	71.13%	\$16.56	43.41%
\$50 - 74.99	19	13.38%	\$6.32	16.57%
\$75 - 99.99	10	7.04%	\$4.12	10.81%
\$100 - 149.99	7	4.93%	\$4.89	12.81%
<u>\$150+</u>	<u>5</u>	<u>3.52%</u>	<u>\$6.25</u>	<u>16.39%</u>
Total	142	100.00%	\$38.15	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	9	40.91%	\$1.70	17.36%
\$50 - 74.99	5	22.73%	\$1.60	16.34%
\$75 - 99.99	2	9.09%	\$0.96	9.81%
\$100 - 149.99	5	22.73%	\$3.43	35.04%
<u>\$150+</u>	<u>1</u>	<u>4.55%</u>	<u>\$2.10</u>	<u>21.45%</u>
Total	22	100.00%	\$9.79	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	28.13%	\$2.32	6.82%
\$50 - 74.99	6	18.75%	\$1.99	5.85%
\$75 - 99.99	3	9.38%	\$1.45	4.26%
\$100 - 149.99	7	21.88%	\$4.94	14.53%
<u>\$150+</u>	<u>7</u>	<u>21.88%</u>	<u>\$23.31</u>	<u>68.54%</u>
Total	32	100.00%	\$34.01	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	30	50.85%	\$7.24	32.02%
\$50 - 74.99	23	38.98%	\$7.99	35.34%
\$75 - 99.99	0	0.00%	\$0.00	0.00%
\$100 - 149.99	2	3.39%	\$1.36	6.02%
<u>\$150+</u>	<u>4</u>	<u>6.78%</u>	<u>\$6.02</u>	<u>26.62%</u>
Total	59	100.00%	\$22.61	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	27	39.71%	\$6.89	14.75%
\$50 - 74.99	21	30.88%	\$7.62	16.31%
\$75 - 99.99	4	5.88%	\$1.95	4.17%
\$100 - 149.99	3	4.41%	\$2.07	4.43%
<u>\$150+</u>	<u>13</u>	<u>19.12%</u>	<u>\$28.18</u>	<u>60.33%</u>
Total	68	100.00%	\$46.71	100.00%

# Appendix D

Western Gulf of Mexico  
Outer Continental Shelf  
Oil and Gas Lease Sale 184

**Bidding Results – Graphs**

# Distribution of High Bids Sale 184, WGOM

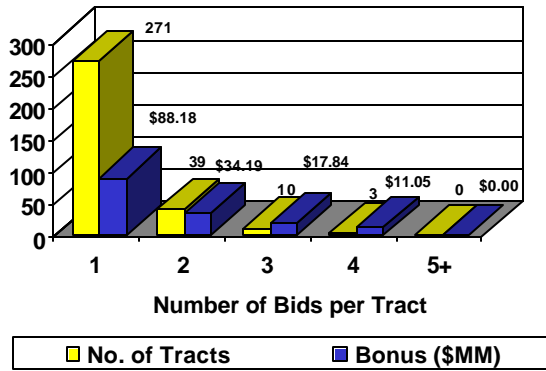
Prepared by:  
Economics Division, MMS

## Sale 184 (WGOM) Bidding Results

- 323 tracts received 391 bids (1.21 bids/tract)
- High bids were \$151.27 MM
- Average high bid per acre was \$85.34
- 44 companies submitted bids
- 164 tracts in < 400 meters received bids -  
50.77% of tracts and 31.69% of high bids
- 159 tracts in 400+ meters received bids -  
49.23% of tracts and 68.31% of high bids

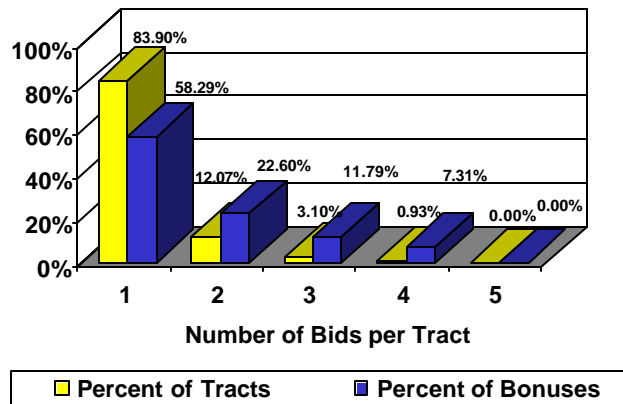
## Sale 184, Aggregate

Bidding Activity by Bids per Tract



## Sale 184, Aggregate

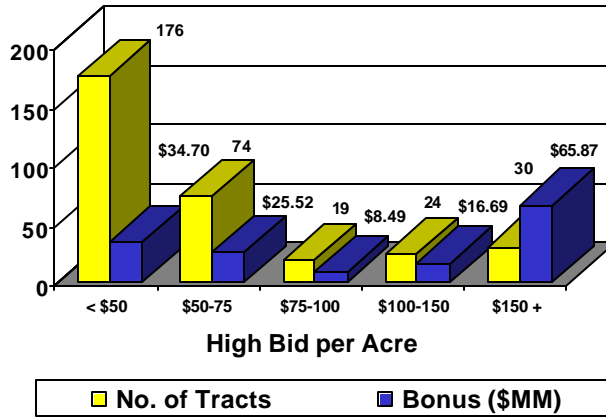
Bidding Activity by Bids per Tract





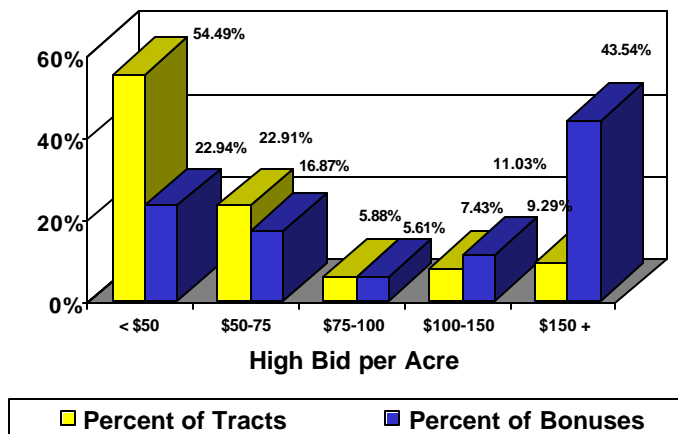
## Sale 184, Aggregate

### Bidding Activity by High Bid per Acre



## Sale 184, Aggregate

### Bidding Activity by High Bid per Acre



## Sale 184

### Bidding by Water Depth Category

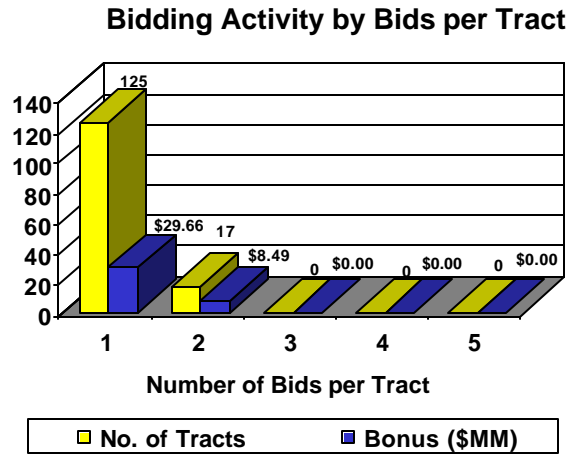
Prepared by:  
Economics Division, MMS

## Sale 184 (WGOM)

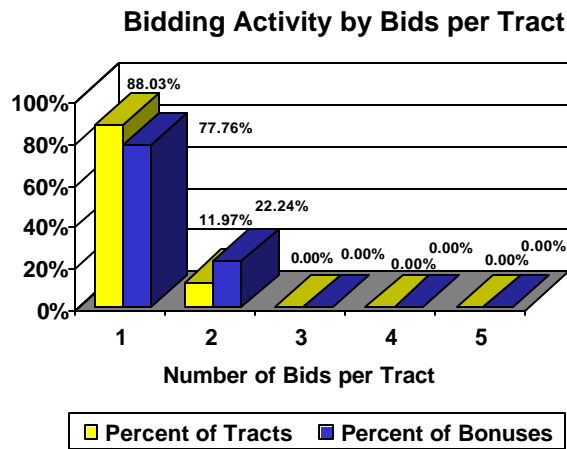
### Bidding by Water Depth Category

- 142 tracts in < 200 meters received 159 bids and high bids of \$38.15 MM (\$51.68/acre)
- 22 tracts in 200-399 meters had 28 bids and high bids of \$9.79 MM (\$77.25/acre)
- 32 tracts in 400-799 meters had 58 bids and high bids of \$34.01 MM (\$184.50/acre)
- 59 tracts in 800-1,599 meters had 61 bids and high bids of \$22.61 MM (\$67.39/acre)
- 68 tracts in > 1,600 meters had 85 bids and high bids of \$46.71 MM (\$120.47/acre)

## Sale 184, Tracts in < 200 Meters Water Depth

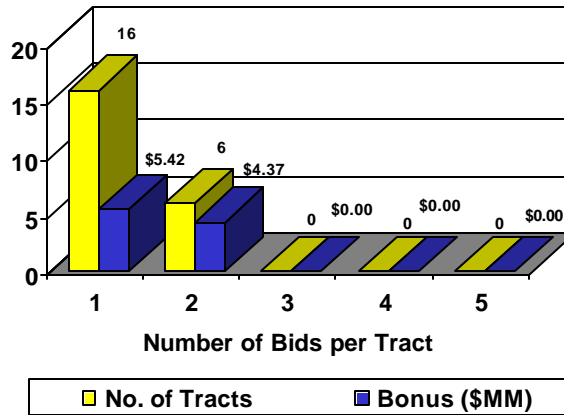


## Sale 184, Tracts in < 200 Meters Water Depth



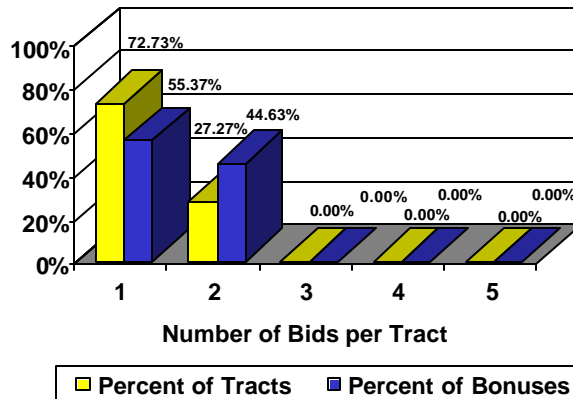
## Sale 184, Tracts in 200-399 Meters Water Depth

### Bidding Activity by Bids per Tract



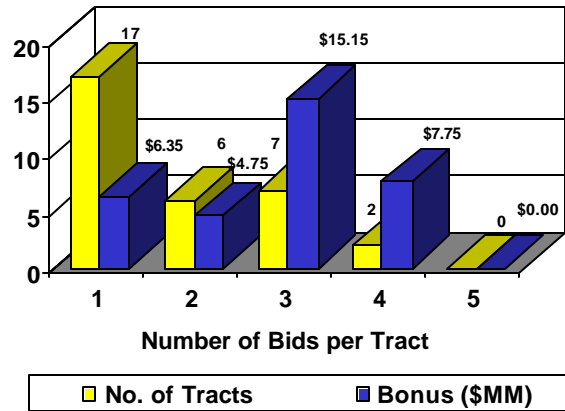
## Sale 184, Tracts in 200-399 Meters Water Depth

### Bidding Activity by Bids per Tract



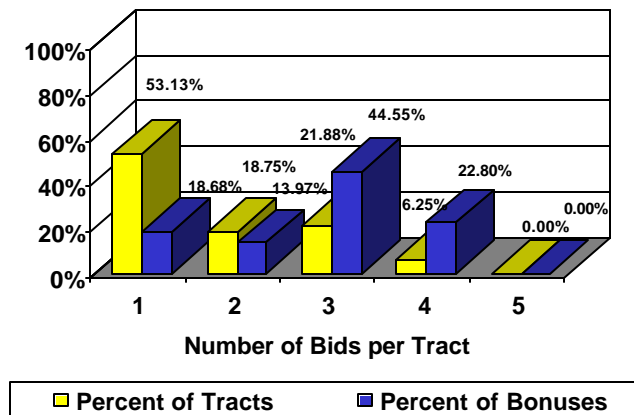
## Sale 184, Tracts in 400-799 Meters Water Depth

### Bidding Activity by Bids per Tract

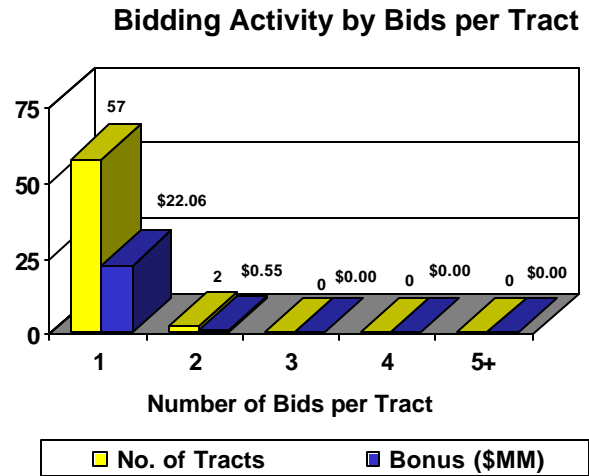


## Sale 184, Tracts in 400-799 Meters Water Depth

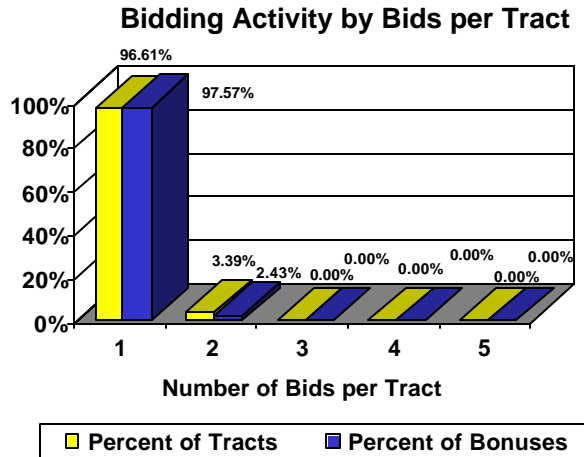
### Bidding Activity by Bids per Tract



## Sale 184, Tracts in 800-1,599 Meters Water Depth

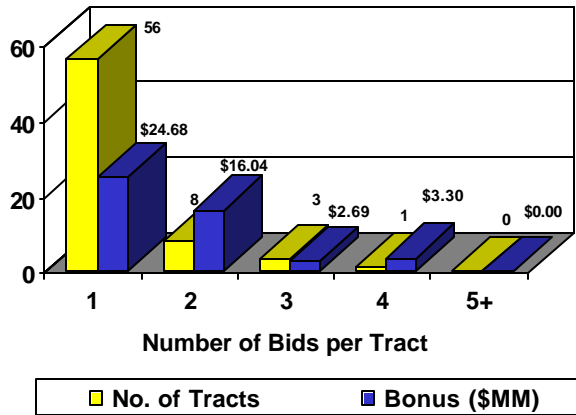


## Sale 184, Tracts in 800-1,599 Meters Water Depth



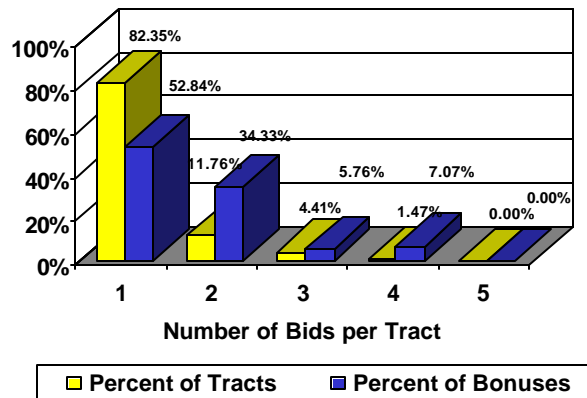
**Sale 184, Tracts in 1,600 Meters or More Water Depth**

**Bidding Activity by Bids per Tract**

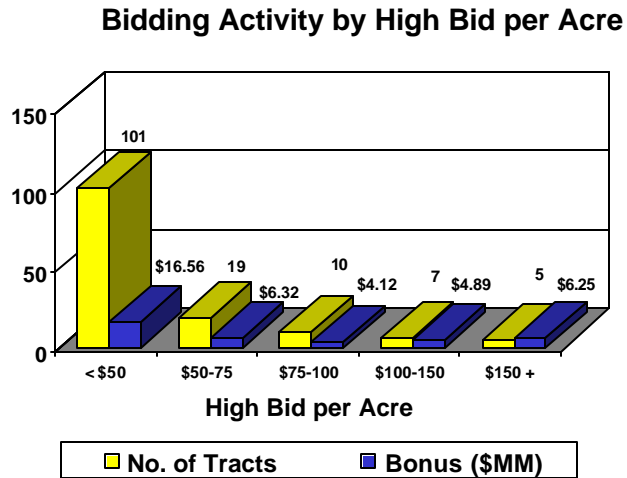


**Sale 184, Tracts in 1,600 Meters or More Water Depth**

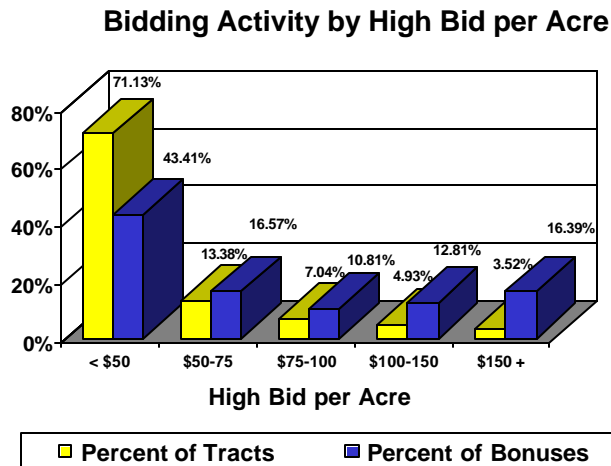
**Bidding Activity by Bids per Tract**



## Sale 184, Tracts in < 200 Meters Water Depth



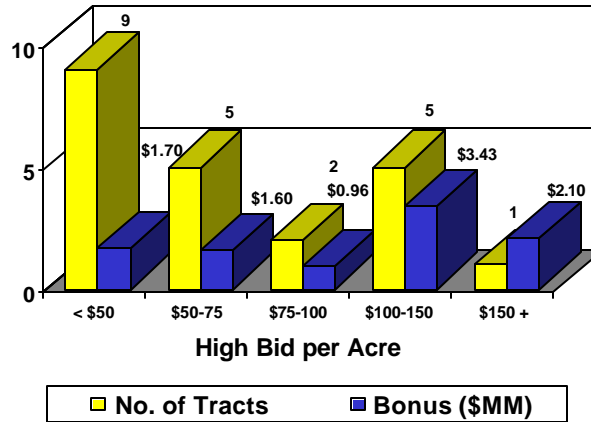
## Sale 184, Tracts in < 200 Meters Water Depth





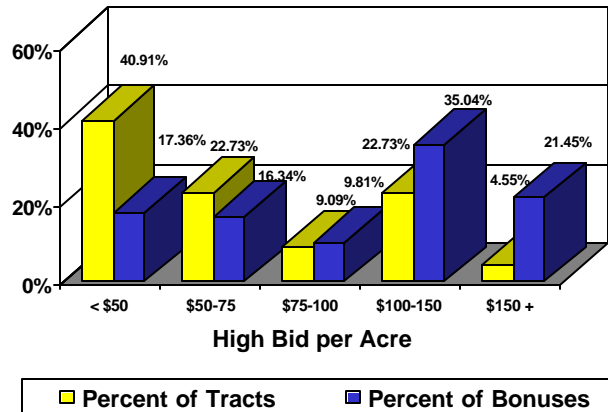
## Sale 184, Tracts in 200-399 Meters Water Depth

### Bidding Activity by High Bid per Acre



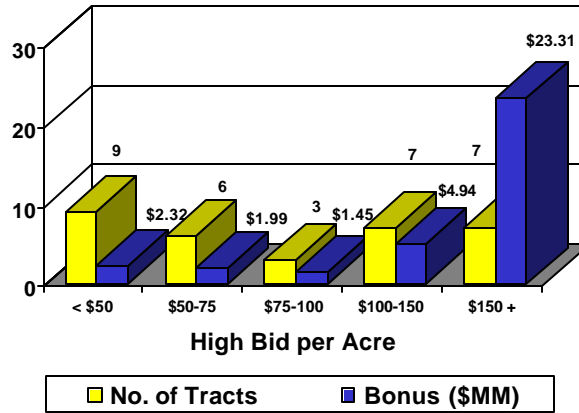
## Sale 184, Tracts in 200-399 Meters Water Depth

### Bidding Activity by High Bid per Acre



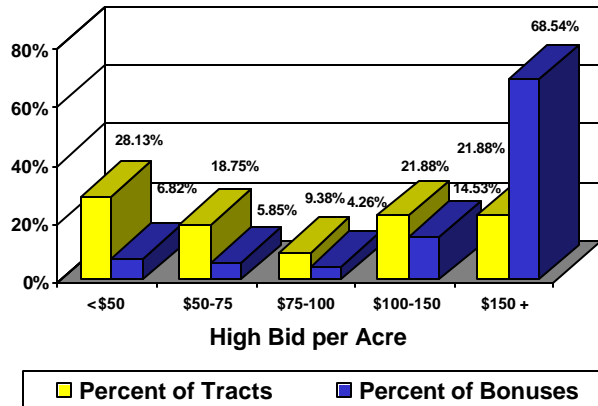
## Sale 184, Tracts in 400-799 Meters Water Depth

### Bidding Activity by High Bid per Acre



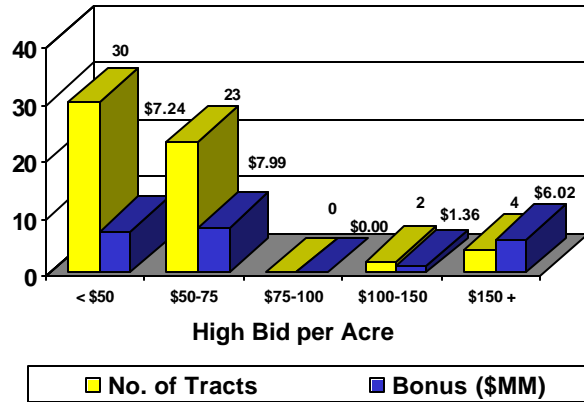
## Sale 184, Tracts in 400-799 Meters Water Depth

### Bidding Activity by High Bid per Acre



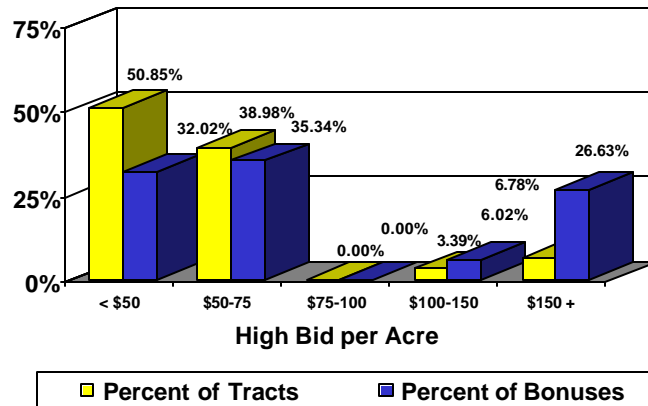
## Sale 184, Tracts in 800-1,599 Meters Water Depth

### Bidding Activity by High Bid per Acre



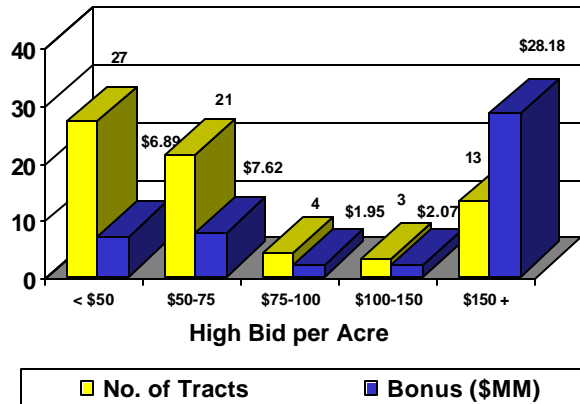
## Sale 184, Tracts in 800-1,599 Meters Water Depth

### Bidding Activity by High Bid per Acre



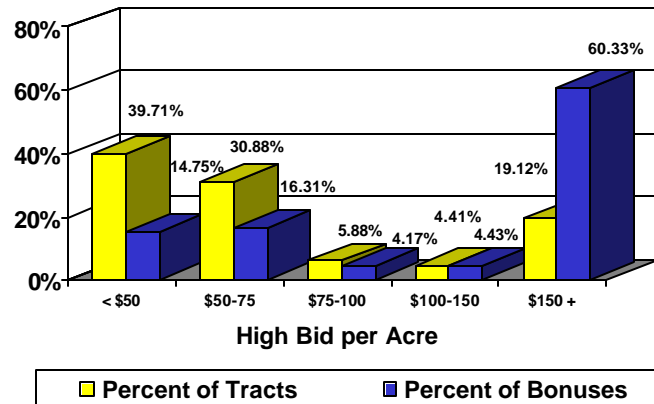
**Sale 184, Tracts in 1,600 Meters or More Water Depth**

**Bidding Activity by High Bid per Acre**



**Sale 184, Tracts in 1,600 Meters or More Water Depth**

**Bidding Activity by High Bid per Acre**



# Appendix E

## **Revised Arithmetic Average Measure (RAM)**

## Sale 184, Tracts with Three or More Bids

In Sale 184, three or more bids were received on 13 tracts, all confirmed or wildcat. The distribution of those bids by water depth category and third bid as a percent of high bid is presented in Table E1.

Table E1.—*Percent Difference Between a Tract’s High Bid and Third Bid by Water Depth Category*

Category	< 25%	25 - 50%	50 - 75%	> 75%	Total
< 200 m.	0	0	0	0	0
200 - 399 m.	0	0	0	0	0
400 - 799 m.	4	4	0	1	9
800 – 1,599 m.	0	0	0	0	0
1,600 m. or more	2	2	0	0	4
Total	6	6	0	1	13

Sale 184 was the eleventh sale in which 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 184, no three-or-more bid tracts met the bid acceptance criteria described above.

Sale 184 was also the eleventh sale using a modified Phase 2 averaging rule, the “Revised Arithmetic Average Measure” (RAM) of tract value. The RAM is a secondary bid acceptance rule that is used on multi-bid tracts if the Government’s value of the tract (ADV) 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, the high bid is accepted and if the RAM exceeds the high bid, the high bid is rejected.

Thirteen tracts that could potentially use the RAM as the bid acceptance decision rule were passed to Phase 2 for further evaluation. Of those, three 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 10 tracts, the ADV's that would be needed to reject a tract's high bid using the RAM were calculated. Using the RAM, 3 tracts need an ADV of less than \$1 million; 5 tracts need an ADV of between \$1 million to \$5 million; 1 needs an ADV of between \$5 million to \$10 million; and 1 needs an ADV of more than \$10 million for high bid rejection based on this criterion. The results are presented in Table E2.

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.	0	0	0	0	0
200 - 399 m.	0	0	0	0	0
400 - 799 m.	2	4	0	1	7
800 – 1,599 m.	0	0	0	0	0
1,600 m. or more	1	1	1	0	3
Total	3	5	1	1	10

## Sale 184, Tracts with Three or More Bids Passed to Phase 2

Table E3.—Tracts in 400 - 799 Meters; 5 MMBOE Royalty Suspension Volume

Tract	High Bid	No. of Bids	3 <sup>rd</sup> Bid as % of High Bid	Adjusted No. of Bids	ADV to Reject w/RAM
G24462	\$2,843,000	3	12.83%	2	\$4,646,178
G24472	\$2,150,000	3	10.66%	1	Not Applicable
G24479	\$1,901,587	4	35.70%	3	\$3,206,896
G24482	\$8,353,500	3	8.74%	2	\$14,591,581
G24483	\$5,851,587	4	9.21%	1	Not Applicable
G24484	\$577,000	3	25.94%	3	\$1,205,414
G24485	\$437,000	3	34.12%	3	\$960,661
G24488	\$535,000	3	30.19%	3	\$1,146,500
G24489	\$254,925	3	83.80%	3	\$329,390

Table E4.—*Tracts in 1,600 Meters or More; 12 MMBOE Royalty Suspension Volume*

<b>Tract</b>	<b>High Bid</b>	<b>No. of Bids</b>	<b>3<sup>rd</sup> Bid as % of High Bid</b>	<b>Adjusted No. of Bids</b>	<b>ADV to Reject w/RAM</b>
G24581	\$501,587	3	44.86%	3	\$896,721
G24582	\$901,587	3	24.96%	2	\$1,420,134
G24593	\$3,301,587	4	30.73%	3	\$6,646,937
G24606	\$1,285,855	3	17.50%	1	Not Applicable

The RAM was used in the acceptance of the high bid on one tract. For tract G24479, the ADV on the tract was \$2.4 million, which exceeded the high bid of \$1,901,587, but the high bid was accepted because it was larger than the tract’s RAM of \$1,699,863.



# Appendix F

## **Summary of Company Bids**

## Sale 184 - Company Bids by Total Amount of High Bids

Rank	Company #	Company Name	Total	High	Losers	Total Exposed	Total High Bids	Total Unsuccessful
1	689	Shell Offshore	39	35	4	\$41,999,806	\$40,993,458	\$1,006,348
2	59	Amerada Hess	52	45	7	\$16,804,701	\$14,617,930	\$2,186,771
3	2219	Kerr-McGee Oil & Gas	53	45	8	\$15,361,200	\$13,072,320	\$2,288,880
4	1935	Pioneer Natural Resources	42	40	2	\$10,553,593	\$10,182,879	\$370,714
5	2058	LLOG Exploration Offshore	21	19	2	\$9,826,000	\$9,251,000	\$575,000
6	282	Dominion Exploration	3	2	1	\$7,533,225	\$7,116,750	\$416,475
7	2277	BHP Petroleum (Deepwater)	18	18	0	\$4,918,622	\$4,918,622	\$0
8	2466	Gryphon Exploration	13	13	0	\$4,478,468	\$4,478,468	\$0
9	1689	Murphy Exploration	11	8	3	\$4,322,000	\$3,621,000	\$701,000
10	1364	Newfield Exploration	7	5	2	\$3,770,400	\$3,515,100	\$255,300
11	2079	Nexen Petroleum Offshore	8	6	2	\$3,738,675	\$3,419,130	\$319,545
12	2566	F-W Oil Exploration	10	9	1	\$3,862,000	\$3,351,000	\$511,000
13	1777	Ocean Energy	16	15	1	\$2,884,320	\$2,746,080	\$138,240
14	2481	BP Exploration & Production	2	1	1	\$4,986,400	\$2,743,200	\$2,243,200
15	236	El Paso Production	14	12	2	\$3,102,310	\$2,566,160	\$536,150
16	2525	Westport Resources	6	4	2	\$2,671,325	\$2,501,125	\$170,200
17	818	Mariner Energy	12	9	3	\$3,219,513	\$2,423,050	\$796,463
18	2169	Spinnaker Exploration	11	8	3	\$2,807,567	\$2,170,875	\$636,692
19	1207	Petrobras America	17	11	6	\$3,301,339	\$1,931,021	\$1,370,318
20	1500	TotalFinaElf E&P	9	8	1	\$1,822,000	\$1,622,000	\$200,000
21	276	Exxon Mobil	20	14	6	\$4,658,500	\$1,457,500	\$3,201,000
22	730	Walter Oil & Gas	5	3	2	\$3,996,964	\$1,268,093	\$2,728,871
23	2493	Pure Resources	3	3	0	\$1,179,982	\$1,179,982	\$0
24	1958	Maxus (U.S.) Exploration	5	3	2	\$1,500,000	\$1,149,075	\$350,925
25	3	Union Oil - California	6	3	3	\$3,773,095	\$990,197	\$2,782,898
26	78	Chevron USA	6	2	4	\$4,668,506	\$902,437	\$3,766,069
27	2421	Devon Energy Production	4	3	1	\$1,037,750	\$824,125	\$213,625
28	1819	ATP Oil & Gas	2	1	1	\$1,629,980	\$784,990	\$844,990
29	2397	Samson Offshore	5	5	0	\$749,869	\$749,869	\$0
30	2455	Triumph Energy	5	4	1	\$969,000	\$731,000	\$238,000

Rank	Company #	Company Name	Total	High	Losers	Total Exposed	Total High Bids	Total Unsuccessful
31	1046	The Houston Exploration Co.	7	6	1	\$864,353	\$723,261	\$141,092
32	724	Marathon Oil	5	5	0	\$642,950	\$642,950	\$0
33	2407	Woodside Energy	5	5	0	\$526,050	\$526,050	\$0
34	981	Anadarko Petroleum	4	3	1	\$474,350	\$377,725	\$96,625
35	64	Hunt Oil	5	2	3	\$837,400	\$330,600	\$506,800
36	1284	W & T Offshore	2	2	0	\$303,330	\$303,330	\$0
37	2066	Ridgelake Energy	1	1	0	\$275,000	\$275,000	\$0
38	1355	Cabot Oil & Gas	1	1	0	\$231,840	\$231,840	\$0
39	2522	Denbury Offshore	1	1	0	\$205,000	\$205,000	\$0
40	2573	PetroCorp Acquisition	2	1	1	\$199,491	\$160,950	\$38,541
41	1978	William G. Helis Co.	3	3	0	\$134,376	\$134,376	\$0
42	145	J.M. Huber Corp.	1	1	0	\$46,327	\$46,327	\$0
43	1999	Houston Energy	1	1	0	\$29,408	\$29,408	\$0
44	2480	Davis Offshore	3	0	3	\$654,978	\$0	\$654,978

# Appendix G

**Sales 184 and 180**

**Active Bidders**

## Companies Participating in 10 or More Bids in Sale 184

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	0	6	8	13	26	53	\$15,361,200	3	\$289,834
Amerada Hess	59	0	3	19	19	11	52	\$16,804,702	2	\$323,167
Pioneer Natural Resources	1935	35	0	1	6	0	42	\$10,553,593	4	\$251,276
Shell Offshore	689	4	1	2	4	28	39	\$41,999,806	1	\$1,076,918
LLOG Exploration Offshore	2058	13	5	3	0	0	21	\$9,826,000	5	\$467,905
Exxon Mobil	276	10	0	0	0	10	20	\$4,658,500	10	\$232,925
BHP Petroleum (Deepwater)	2277	0	0	0	8	10	18	\$4,918,623	8	\$273,257
Petrobras America	1207	0	1	11	5	0	17	\$3,301,339	18	\$194,196
Ocean Energy	1777	0	1	1	6	8	16	\$2,884,320	21	\$180,270
El Paso Production	236	13	1	0	0	0	14	\$3,102,310	20	\$221,594
Gryphon Exploration	2466	13	0	0	0	0	13	\$4,478,468	11	\$344,498
Mariner Energy	818	5	4	0	3	0	12	\$3,219,513	19	\$268,293
Murphy Exploration	1689	0	3	6	2	0	11	\$4,322,000	12	\$392,909
Spinnaker Exploration	2169	8	0	0	3	0	11	\$2,807,567	22	\$255,233
F-W Oil Exploration	2566	10	0	0	0	0	10	\$3,862,000	14	\$386,200

### Companies Participating in 15 or More Bids in Sale 180

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	1	13	22	14	5	55	\$36,105,233	1	\$656,459
Spinnaker Exploration	2169	28	0	5	5	0	38	\$19,240,400	2	\$506,326
Petrobras America	1207	0	2	19	8	6	35	\$18,705,801	3	\$534,451
Amerada Hess	59	2	2	14	10	4	32	\$16,969,773	4	\$530,305
Exxon Mobil	276	15	0	0	12	2	29	\$7,843,000	6	\$270,448
Anadarko Petroleum	981	0	0	3	23	2	28	\$5,509,888	11	\$196,782
Pioneer Natural Resources	1935	12	0	1	12	0	25	\$7,333,830	7	\$293,353
Union Oil Co. of California	3	5	1	1	0	12	19	\$4,422,414	12	\$232,759
Shell Offshore	689	9	2	2	1	4	18	\$12,062,150	5	\$670,119
Ocean Energy	1777	0	0	1	12	5	18	\$6,554,940	8	\$364,163

# Appendix H

**Sales 184 and 180**

**Comparison of Sales - Graphs**

# Sale 184 v. Sale 180

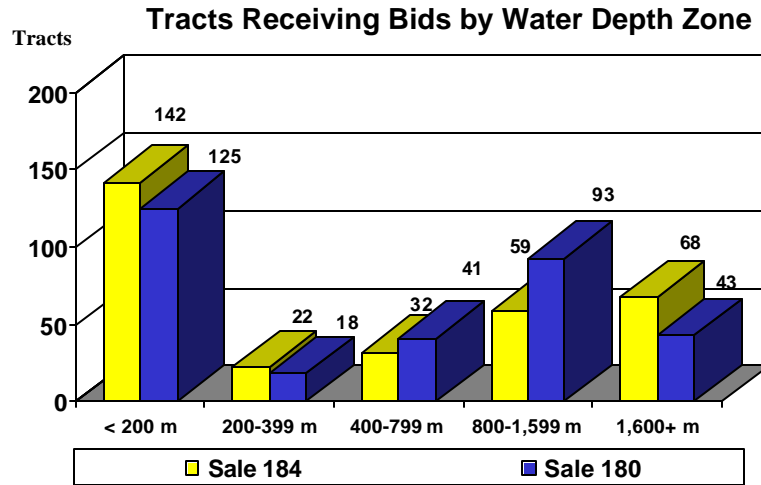
Prepared by:  
Economics Division, MMS

## Sale 184 v. Sale 180 (WGOM) Comparison of Results

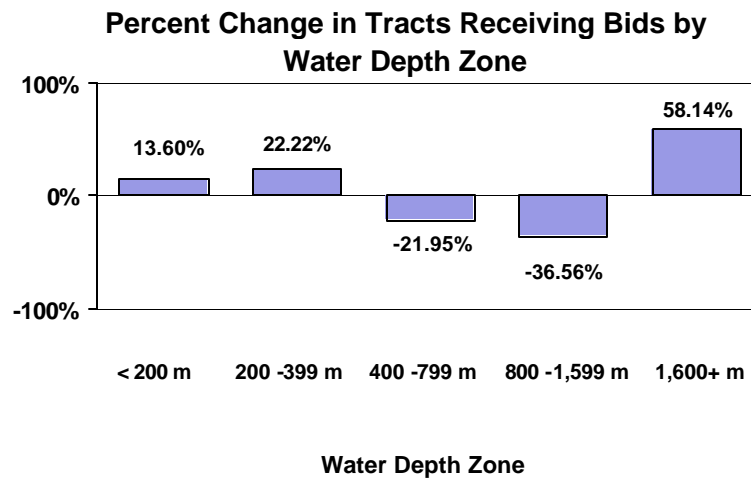
- In aggregate, 323 tracts received high bids of \$151.27 MM in Sale 184 and 320 tracts received high bids of \$165.57 MM in Sale 180
- Bids per tract of 1.21 were the same in both Sale 180 and in Sale 184
- Sale 184 had 142 tracts in < 200 m. receiving high bids of \$38.15 MM v. 125 tracts and high bids of \$46.45 MM in Sale 180
- Sale 184 had 181 tracts in > 200 m. receiving high bids of \$113.12 MM v. 195 tracts and high bids of \$119.12 MM in Sale 180



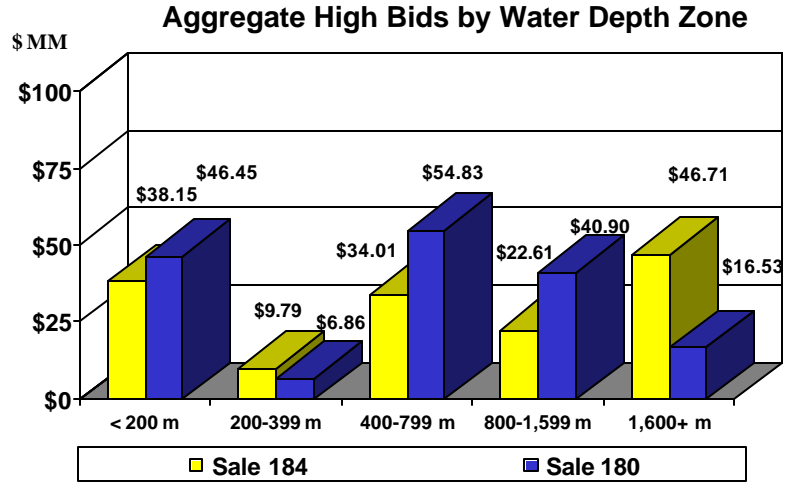
## Sale 184 v. Sale 180 - Tracts



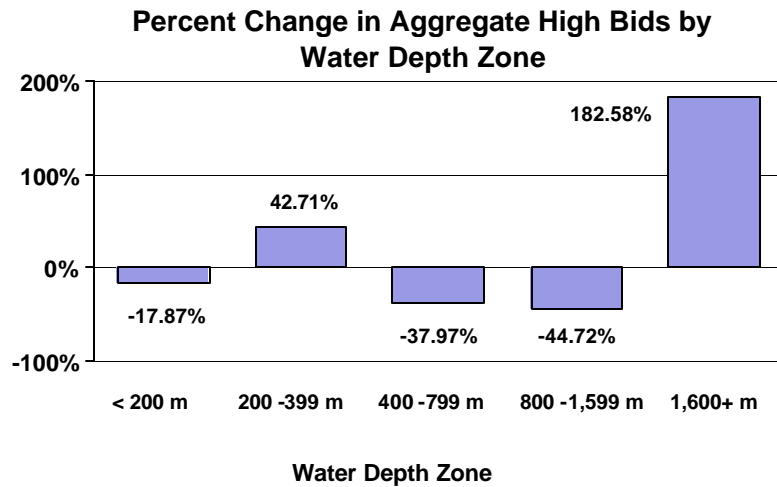
## Sale 184 v. Sale 180 - Tracts



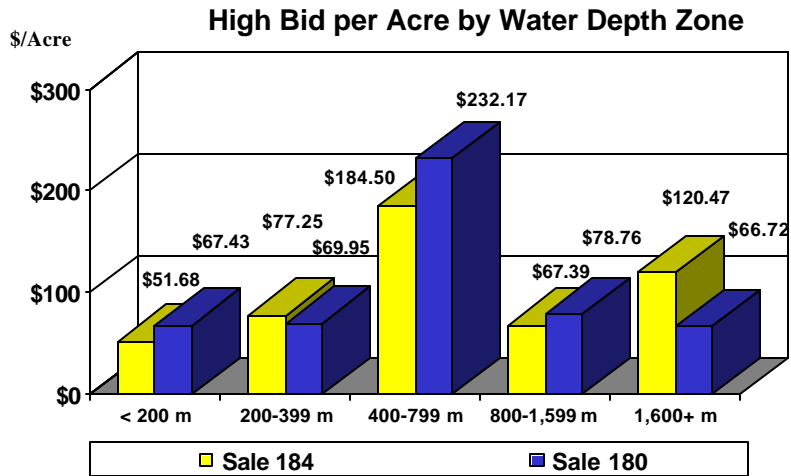
## Sale 184 v. Sale 180 - Bonuses



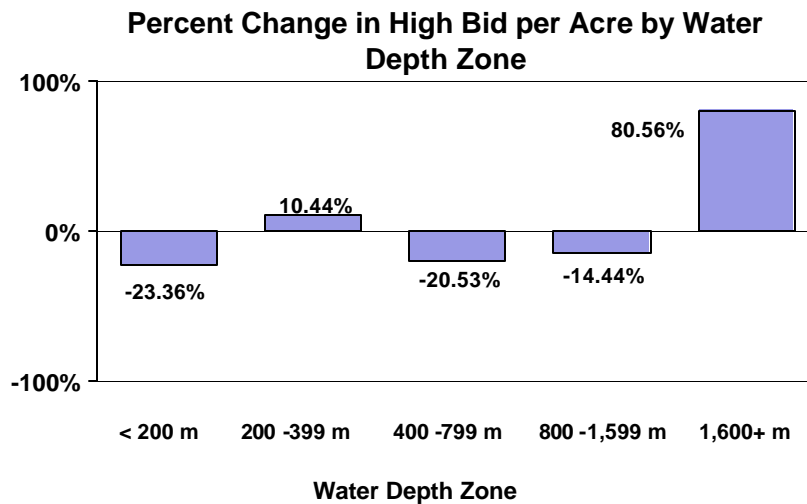
## Sale 184 v. Sale 180 - Bonuses



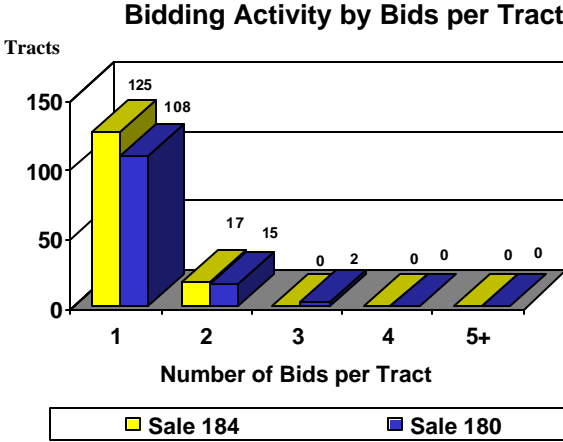
## Sale 184 v. Sale 180 - High Bid per Acre



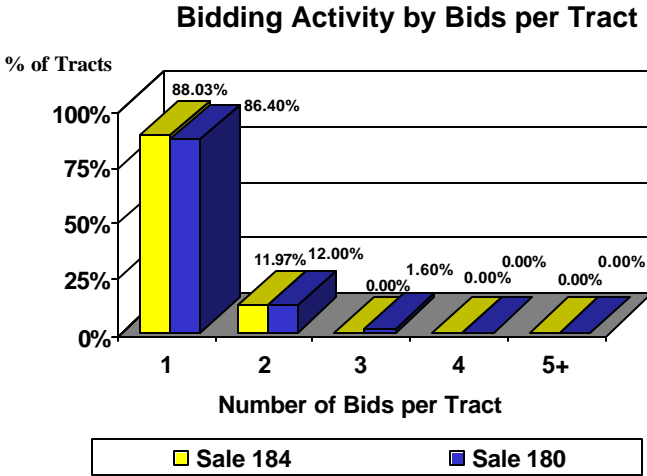
## Sale 184 v. Sale 180 - High Bid per Acre



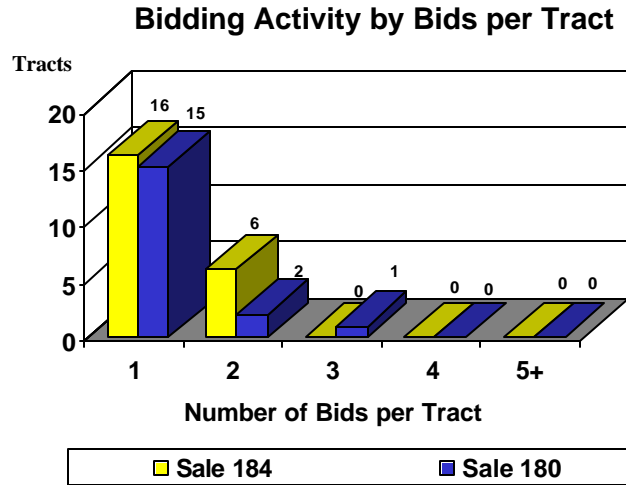
### Sale 184 v. Sale 180 - Tracts < 200 Meters Water Depth



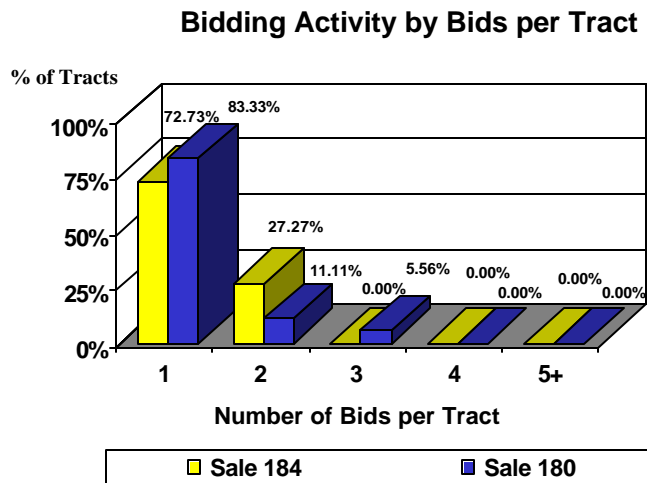
### Sale 184 v. Sale 180 - Tracts < 200 Meters Water Depth



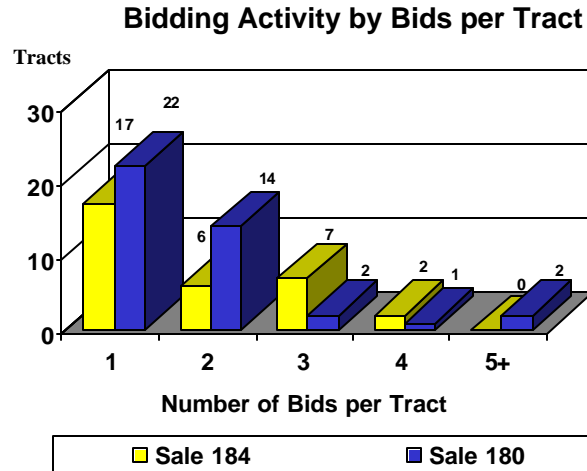
## Sale 184 v. Sale 180 - Tracts in 200 to 399 Meters Water Depth



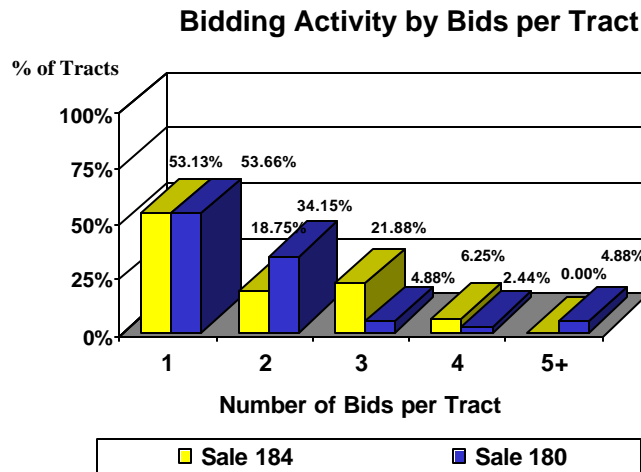
## Sale 184 v. Sale 180 - Tracts in 200 to 399 Meters Water Depth



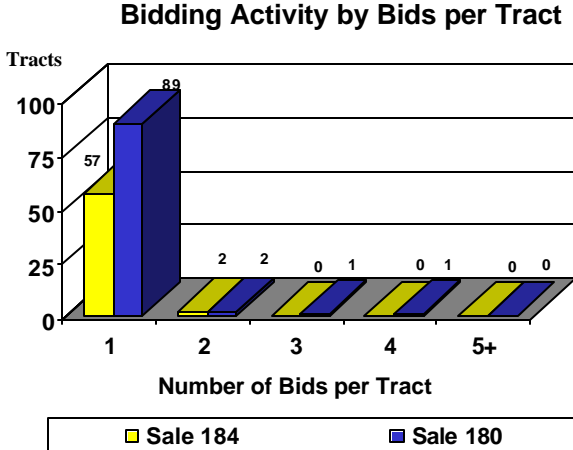
## Sale 184 v. Sale 180 - Tracts in 400 to 799 Meters Water Depth



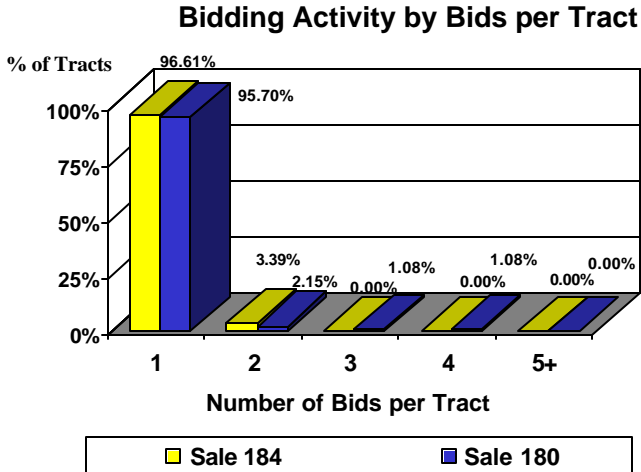
## Sale 184 v. Sale 180 - Tracts in 400 to 799 Meters Water Depth



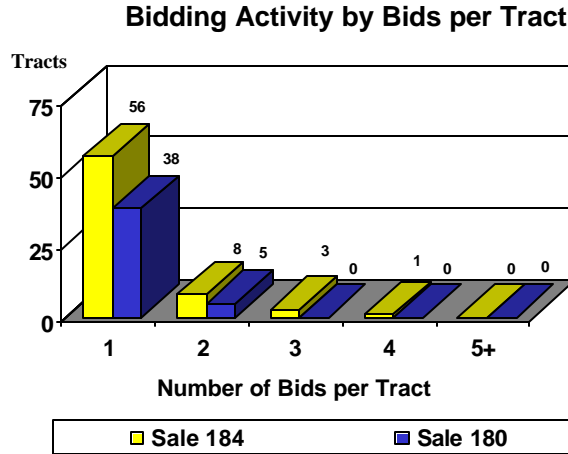
**Sale 184 v. Sale 180 - Tracts in 800 to 1,599 Meters Water Depth**



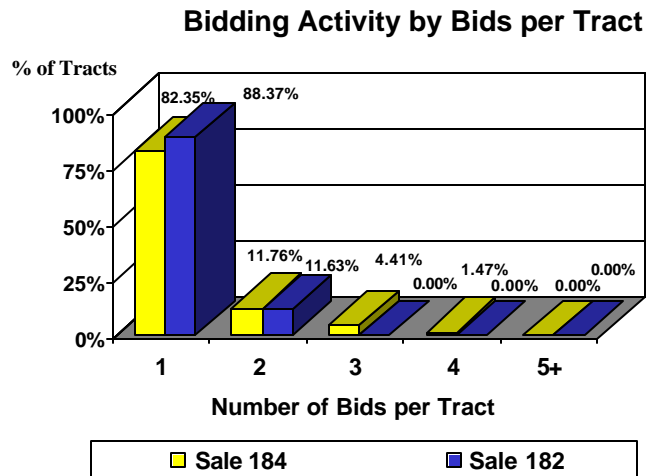
**Sale 184 v. Sale 180 - Tracts in 800 to 1,599 Meters Water Depth**



### Sale 184 v. Sale 180 - Tracts in 1,600 Meters or More Water Depth

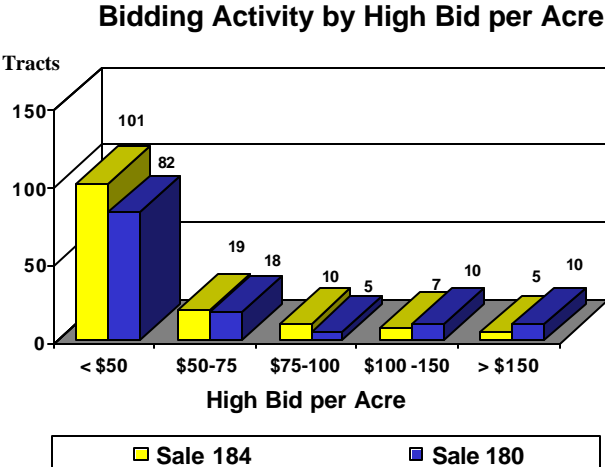


### Sale 184 v. Sale 180 - Tracts in 1,600 Meters or More Water Depth

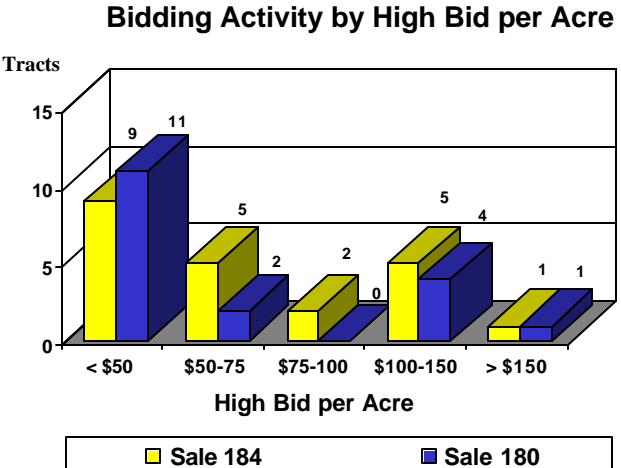




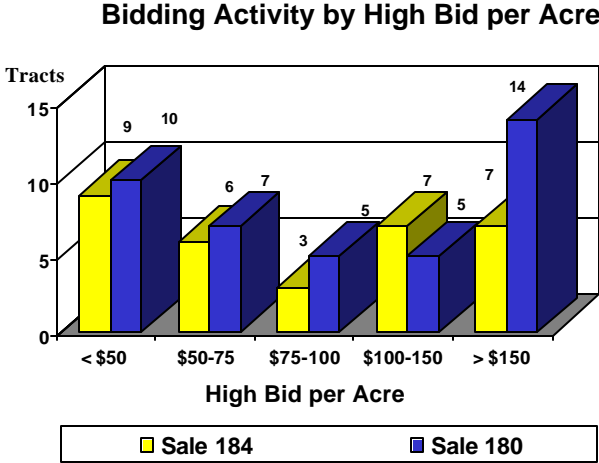
### Sale 184 v. Sale 180 - Tracts < 200 Meters Water Depth



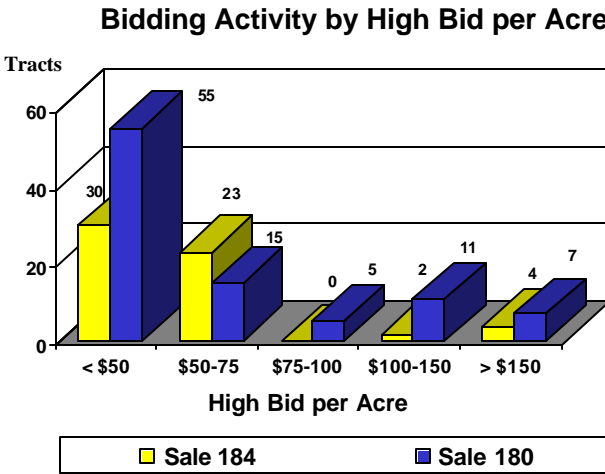
### Sale 184 v. Sale 180 - Tracts in 200 to 399 Meters Water Depth



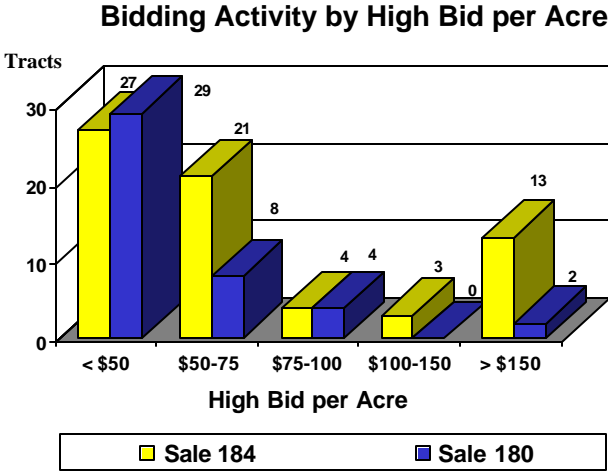
**Sale 184 v. Sale 180 - Tracts in 400 to 799 Meters Water Depth**



**Sale 184 v. Sale 180 - Tracts in 800 to 1,599 Meters Water Depth**



# Sale 184 v. Sale 182 - Tracts in 1,600 Meters Water or More Depth



# Appendix I

## **High Bid Rejections**

## Sale 184 Rejections

High bids on seven tracts were rejected in Sale 184. The rejected blocks received from one bid to two bids. By water depth category, the rejections were as follows: three in less than 200 meters, three in 400 to 799 meters, and one in 800 to 1,599 meters.

Table I1.—*Sale 184, 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
G24355	1	\$277,700	\$1,400,000	Not Applicable
G24259	1	\$232,000	\$800,000	Not Applicable
G24396	1	\$418,029	\$1,100,000	Not Applicable

Table I2.—*Sale 184, Rejections in Water Depths of 400-799 Meters; Royalty Rate = 1/8; 5 MMBOE Royalty Suspension Volume*

Tract No.	Bids	High Bid	ADV	RAM
G24461	1	\$273,838	\$1,000,000	Not Applicable
G24469	1	\$268,838	\$1,300,000	Not Applicable
G24477	2	\$678,838	\$1,300,000	\$770,973

Table I3.—*Sale 184, 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
G24504	1	\$251,587	\$1,400,000	Not Applicable

## Sale 184 Bidding on Sale 180 Rejections

In Sale 184, four tracts with high bids that were rejected in Sale 180 received bids. In addition, there were three rejected tracts in Sale 180 with aggregate high bids of \$680,800 that did not receive bids in Sale 184.

The high bids on the four tracts with bids increased from \$1,263,415 in Sale 180 to \$13,481,690 in Sale 184, an increase in high bids of 967 percent. The number of bids on these four tracts increased from 4 to 9, a gain of 125 percent. The high bids on all four of the tracts were

accepted in Sale 184. The potential to realize substantial gains in high bids on tracts that were rejected previously highlights the importance of MMS's bid adequacy procedures.

Table I4.—*Sale 184 High Bids on Sale 180 Rejections*

**Tracts with No Sale 184 Bids**

<b>Sale 180 Rejections</b>			<b>Sale 184 High Bids</b>		
<b>Tract No.</b>	<b>Bids</b>	<b>High Bid</b>	<b>Tract No.</b>	<b>Bids</b>	<b>High Bid</b>
G23137	1	\$175,900			
G23140	1	\$275,900			
G23218	1	\$229,000			
<b>Totals</b>	3	\$680,800			

**Tracts with Sale 184 Bids**

<b>Sale 180 Rejections</b>			<b>Sale 184 High Bids</b>		
<b>Tract No.</b>	<b>Bids</b>	<b>High Bid</b>	<b>Tract No.</b>	<b>Bids</b>	<b>High Bid</b>
G23104	1	\$151,375	G24305	2	\$784,990
G23109	1	\$84,633	G24307	2	\$1,600,000
G23301	1	\$671,230	G24482	3	\$8,353,500
G23388	1	\$356,177	G24583	2	\$2,743,200
<b>Totals</b>	4	\$1,263,415	<b>Totals</b>	9	\$13,481,690

# Appendix J

## **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]

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## **DEPARTMENT OF THE INTERIOR**

### **Minerals Management Service**

#### **Modifications to the Bid Adequacy Procedures**

**AGENCY:** Minerals Management Service (MMS), Interior.

**ACTION:** Notification of procedural change.

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**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).

Dated: July 1, 1999.  
Carolita U. Kallaur,  
Associate Director for Offshore Minerals Management.  
[FR Doc. 99-17662 Filed 7-9-99; 8:45 am]  
BILLING CODE 4310-MR-P



### **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.