



**Department of Energy**  
**Strategic Petroleum Reserve Project Management Office**  
**900 Commerce East**  
**New Orleans, Louisiana 70123**

NOTICE OF SALE  
 DE-NS96-11PO97000

Pursuant to Presidential authorization a decision that a drawdown and sale of crude oil from the Strategic Petroleum Reserve is required by U.S. participation in the International Energy Program implemented by the International Energy Agency (IEA), the Secretary of Energy has directed the drawdown and distribution of the Strategic Petroleum Reserve (SPR) through a sale of SPR oil. You are invited to submit offers for the purchase of crude oil from the United States Department of Energy, SPR. Contracts resulting from this sale shall be subject to contract price adjustment as set forth in the Supplements and Amendments to the Standard Sales Provisions. The terms and conditions of the sale and specific instructions for preparation and submittal of offers are contained in this Notice of Sale.

As stated in this Notice of Sale, you are required to submit your offer using the Crude Oil Sales Offer Program. **Manual offers will NOT be accepted.**

Offers are due at 1:00 p.m. Central Daylight Time, June 29, 2011.

Please read this solicitation carefully. Questions regarding this Notice of Sale should be addressed to:

<u>Contact</u>	<u>Telephone</u>	<u>E-Mail</u>
Kelly Gele (Contracting Officer)	(504) 734-4343	<a href="mailto:Kelly.Gele@spr.doe.gov">Kelly.Gele@spr.doe.gov</a>
Anne Quern	(504) 734-4228	<a href="mailto:Anne.Quern@spr.doe.gov">Anne.Quern@spr.doe.gov</a>

Collect calls will not be accepted.

Date: June 24, 2011

*Gary C. Landry*  
 Gary C. Landry  
 Director, Acquisition and  
 Sales Division

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INSTRUCTIONS

**GENERAL REQUIREMENTS**

1. Offer must be submitted via the Crude Oil Sales Offer Program (COSOP) by the date/time specified in the Notice of Sale. **Manual offers will NOT be accepted.**
2. Offers are required to submit an Offer Guarantee (See SSP B.12).

Failure to submit the above document or to comply with material requirements of the Notice of Sale may be cause for rejection of the offer.

**SALE-SPECIFIC REQUIREMENTS**

The following sales requirements are established for this sale:

1. The sale will be by price competition and shall be conducted pursuant to the [Standard Sales Provisions \(SSPs\)](#), except as may be modified by this Notice of Sale.
2. The quantity of SPR crude oil offered for sale is 30 million barrels for delivery to successful offerors over a 31-day delivery period commencing August 1, 2011, and ending August 31, 2011. Due to the collective International Energy Agency response action, requests for early delivery in July in accordance with SSP C.5 (c) are encouraged and will be accommodated to the maximum extent possible.
3. The crude oil streams, delivery modes and periods, and the quantities offered in this sale, as well as minimum contract quantities, are shown on [Attachment A](#).
4. Offers MUST be received by 1:00 p.m., Central Daylight Time, June 29, 2011; any offers received after 1:00 p.m. will be determined to be late and will be rejected, except as provided in SSP B.11, "Late offers, modifications of offers, and withdrawals of offers." Fully Executed Offer Guarantee shall be faxed to (504) 818-5343 or may be scanned and emailed to Kelly.Gele@spr.doe.gov and MUST be received not later than the time/date for receipt of offers. The original hardcopy must be received within 24 hours of the closing date for receipt of offers.

The mailing address for the original offer Guarantee is:

U.S. Department of Energy  
Strategic Petroleum Reserve  
900 Commerce Road East  
New Orleans, LA 70123  
Attn: Kelly Gele

5. Pursuant to SSP B.7, by submission of a binding offer, the State of Hawaii, for this sale, is entitled to purchase up to 900,000 barrels of SPR petroleum.
6. Pursuant to SSP B.9 (e), DOE will inform simultaneously all offerors and other interested parties of the successful and unsuccessful offerors and their offer data by means of a public 'offer posting.' This offer posting will occur within one week after receipt of offers. This information will be provided by a posting on the Internet at the following address: <http://www.spr.doe.gov/>

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SUPPLEMENTS AND AMENDMENTS  
TO THE STANDARD SALES PROVISIONS

For this sale only, the Standard Sales Provisions (SSPs) are supplemented or amended as follows:

1. SSP C.7(a) is modified to provide the following address for submission of a Jones Act waiver request.

U. S. Customs and Border Protection  
Office of Regulations and Rulings  
Chief, Cargo Security  
Carriers and Immigration Branch  
U.S. Department of Homeland Security  
1300 Pennsylvania Avenue, NW  
Mint Annex  
Washington, D.C. 20229  
Telephone No. (202) 572-8724  
Fax: (202) 572-8727

2. SSP B.5, "Superfund" Tax on SPR Petroleum-Caution to Offerors, is supplemented as follows: The "Superfund" taxes are currently not imposed; however, purchasers are liable for Oil Spill Liability Trust Fund taxes of \$0.08/barrel for all SPR crude oil streams. Additionally, purchasers are liable for state and local environmental fees, including the Federal Harbor Maintenance Fund fees, if applicable.

3. SSP B.17, SPR Crude Oil Streams and Delivery Points, is supplemented with the following information:

Minimum delivery lot sizes are 100,000 barrels for pipelines, 350,000 barrels for vessels, and 40,000 barrels for barges. Offerors are reminded, however, of their responsibility to comply with (1) any minimum tender provision of any pipelines by which they take delivery from an SPR terminal, and (2) the vessel usage and load rate restrictions specified in SSP C.8(c), "Vessel loading procedures."

4. SSP B.17, SPR Crude Oil Streams and Delivery Points, Paragraph (a) has been amended as follows:

- Delivery points (from Winnie, Texas): Change from “Shell 20-Inch Meter Station” to “Shell 20-Inch Pipeline.”

5. SSP B.18 (h), Notice of Sale Line Item Schedule – Petroleum Quantity, Quality, and Delivery Method, is supplemented with the following information.

The quality characteristics of the crude oil streams offered for sale are those cited in the [Strategic Petroleum Reserve Crude Oil Assays](#).

6. SSP B. 27, Contract Documents, is amended as follows:

The 3<sup>rd</sup> sentence is deleted in its entirety.

The 4<sup>th</sup> sentence shall read “The NS and the Provisions of the SSPs will be made applicable through incorporation by reference in the NA.”

The last sentence is deleted in its entirety.

7. SSP C.5, Delivery and transportation scheduling, is supplemented with the following information:

- (a) Crude Oil Scheduling:

DM Petroleum Operations Company  
New Orleans, Louisiana  
Chuck Costanza, (504) 734-4733 (Primary)  
Ned Scheppege (504) 734-4604 (Secondary)  
[DMCOL@spr.doe.gov](mailto:DMCOL@spr.doe.gov)

- (b) Pipeline and Terminal contacts:

(i) Enterprise Products (Seaway) Freeport, TX  
Jeremy Head, (405) 239-5777

(ii) Enterprise Products (Seaway) Texas City, TX  
Ron Brown, (713) 393-1112

(iii) Enterprise Products (Jones Creek Tank Farm) Jones Creek, TX  
John Hazley, (979) 237-6756  
Jimmy Neely, (979) 237-6751

(iv) Sun Marine Terminal, Nederland, TX  
Glenda Davalos, (409) 721-4863  
Control Room (409) 721-4845  
Bill Wheeler, Marine Scheduler (409) 721-4812  
Jona Newton, Pipeline Scheduler (409) 721-4823

(v) Unocal (Beaumont Terminal) Nederland, TX

Edward Whitten, Terminal Manager (409) 724-3311  
Anita McGowin, Scheduler (409) 724-3215  
Mark Maxwell, Scheduler (409) 724-3209  
Jan Tomlin, Supervisor Accounting and Scheduling (409) 724-3226

- (vi) ExxonMobil (Bryan Mound Pipeline to Texas City and Jones Creek)  
Cliff Clark, (713) 656-1590  
Donny Pitts (backup), (713) 656-6063, or (713) 201-2540 (cell)
- (vii) Shell Pipeline Company (Shell tie-in @ LCMS and Big Hill to East Houston)  
Jamie Hedrick, Scheduler (713) 241-8742

8. SSP C.5, Delivery and transportation scheduling, is amended as follows:

In the fourth sentence of paragraph (a), change “highest offered price” to “highest Price Adjustment Factor (PAF)”.

In the fourth sentence of paragraph (c), change “highest-priced offer” to “highest PAF”.

9. SSP C.12, Pipeline and Delivery Procedures, Paragraph (d) is deleted in its entirety and replaced with the following:

“The date of delivery, which will be recorded on the CODR (see Provision C.19), is the date delivery completed at the custody transfer point, as identified in the NS.”

10. SSP C.13, Title and risk of loss, is supplemented as follows:

Enterprise Products (Seaway) Texas City - Title and risk of loss pass to the purchaser when the petroleum passes through the SPR Bryan Mound meter station.

Enterprise Products (Seaway) Freeport Terminal – Title and risk of loss pass to the purchaser when the petroleum passes through the Seaway Freeport dock meters.

Enterprise Products Jones Creek – Title and risk of loss pass to the purchaser when the petroleum passes into the SPR Bryan Mound meter station.

DOE Lake Charles Meter Station (Shell 22-inch Pipeline) - Title and risk of loss pass to the purchaser when the petroleum passes through the DOE Lake Charles (Shell 22) meter station.

SPR Site to purchaser’s tank at SUN -Title and risk of loss pass to the purchaser at the purchaser’s receiving tank flange at SUN.

Shell 20-inch (Port Arthur to East Houston)/ DOE 36-inch Big Hill connection - Title and risk of loss pass to the purchaser when the petroleum passes through the SPR Big Hill Meter Station.

Unocal Terminal to Pipeline - Title and risk of loss pass to the purchaser when the petroleum passes from the Unocal shore tank flange.

Unocal Terminal to Vessel – Title and risk of loss pass to the purchaser when the petroleum passes through the Unocal dock meters.

11. SSP C.16, Price Adjustments for Quality Differentials, is deleted in its entirety and replaced with the following:

“(a) The NS will specify quality price adjustments applicable to the crude oil streams offered for sale. Unless otherwise specified by the NS, quality price adjustments will be applied to the amount of variation by which the API gravity of the SPR crude oil delivered differs by more than plus or minus five-tenths of one degree API ( $\pm 0.5^\circ$  API) from the API gravity of the SPR crude oil stream contracted for as published in the NS.

(b) Unless otherwise specified by the NS, quality price adjustments will be applied to the amount of variation by which the Sulfur mass percent of the SPR crude oil delivered differs by more than plus or minus one-tenth of one percent of total Sulfur ( $\pm 0.10$  mass, %) from the total Sulfur of the SPR crude oil stream contracted for as published in the NS.

(c) Price adjustments for the SPR crude oil are expected to be similar to commercial crude oil quality price adjustment methodologies for equivalent quality crude oil, taking into account the amount by which the actual values exceed the allowable variations set forth in paragraphs (a) and (b) above.”

12. SSP C.16, Price Adjustments for Quality Differentials, is supplemented with the following information:

Price adjustments for SPR crude oil streams offered for sale will be calculated using the GravCap tables at Attachment C.

Note: For calculation purposes the following will apply:

(a) API Gravity for each cargo reported in API Gravity  $0.01^\circ$  increments shall be rounded to the nearest tenth ( $0.1^\circ$ ) of one degree API.



(b) Total Sulfur mass % for each cargo reported in 0.001 mass % increments shall be rounded to the nearest one-hundredth of one percent (0.01%) of total Sulfur.

13. SSP C.19 - Delivery Documentation, Appendix A to Part 625 – Standard Sales Provisions, Exhibits, and Exhibit E, are amended as follows:

The Strategic Petroleum Reserve Crude Oil Delivery Report Number is changed to SPRPMO F-416.1-3.

14. SSP C.22, Billing and Payment, paragraph (d) is deleted in its entirety and replaced with the following:

“ (d) In the event that the bank refuses to honor the draft against the letter of credit, the purchaser shall be responsible for paying the principal and any interest, administrative costs and penalties due (see Provision C.24) from the due date.”

15. SSP C.23, Method of Payments, Paragraphs (a) and (d) are deleted in their entirety and replaced with the following:

“(a) All amounts payable by the purchaser shall be paid by deposit to the account of the U.S. Treasury by wire transfer of funds over the Fedwire Deposit System Network. The information to be included in each wire transfer will be provided in the NS. All wire deposit electronic funds transfer costs will be borne by the purchaser.”

(d) Notwithstanding any other contract provision, DOE may via a draft message request a wire transfer of funds against the standby letter of credit at any time for payment of monies due under the contract and remaining unpaid in violation of the terms of the contract. These would include but not be limited to interest, administrative costs, penalties, liquidated damages, demurrage, amounts owing for any services provided under the contract, and the difference between the contract price and price received on the resale of undelivered petroleum as defined in Provision C.25.”

16. SSP C.24, Interest, is deleted in its entirety and replaced with the following:

“C.24 Interest, Administrative Costs and Penalties

(a) Amounts due and payable by the purchaser or its bank that are not paid in accordance with the provisions governing such payments shall bear interest from the day the invoice is mailed or transmitted to the purchaser until the date payment is received by the Government.

- (b) Administrative Costs will be charged to cover the expense of collecting delinquent debt. The current rate is \$7.25.
- (c) A penalty will be assessed at the rate of 6% per year. The penalty charge accrues from the day the invoice is mailed or transmitted to the purchaser, and is assessed on any portion of the debt that is outstanding for more than 90 days, including any interest and administrative costs.

17. SSP C.32, Disputes, is amended as follows:

Paragraph (c) "\$50,000" is changed to "\$100,000", and the following language is added to the certification "; and that I am duly authorized to certify the claim on behalf of the purchaser."

18. Exhibit C – SAMPLE OFFER GUARNTTEE STANDBY LETTER OF CREDIT is amended as follows:

- In the paragraph beginning with "Upon receipt of the U.S. Department...", in the first sentence, delete "either" and ", or by electronic funds transfer through the Automated Clearing House Network, using the Federal Remittance Express Program."
- In the paragraph beginning with "This Letter of Credit is subject to the Uniform...", replace "1993" with "2007" and replace "500" with "600".
- In the paragraph beginning with "We hereby agree with the drawers, ..." delete "the drawers, endorsers and bona fide holders" and replace with "you".
- After the paragraph beginning with "We hereby agree with the drawers...", insert the following paragraph:
  - "In the event of a bankruptcy filing by the applicant prior to the expiration date of this letter of credit, the expiration date of this letter of credit will automatically be extended by one hundred twenty (120) calendar days from the expiration date."

Exhibit C – Instructions for Offer Letter of Credit, is amended as follows:

- Item 3. "Banks shall fill in blanks except those in the drawing statement (Exhibit C). The drawing statement is in all capital letters. Do not fill in underlined blanks."

- Item 4. “The information to be included and format to be used for a wire transfer as a deposit over the Fedwire Deposit System Network is included in the Notice of Sale. (See Attachment B)”

19. Exhibit D – SAMPLE PAYMENT AND PERFORMANCE LETTER OF CREDIT is amended as follows:

- In the paragraph beginning with “Upon receipt of the U.S. Department...”, in the first sentence, delete “either” and “, or by electronic funds transfer through the Automated Clearing House Network, using the Federal Remittance Express Program”
- In the paragraph beginning with “This Letter of Credit is subject to the Uniform...”, replace “1993” with “2007” and replace “500” with “600”.
- In the paragraph beginning with “We hereby agree with the drawers, ...” delete “the drawers, endorsers and bona fide holders” and replace with “you”.
- After the paragraph beginning with “We hereby agree with the drawers...”, insert the following paragraph:
  - “In the event of a bankruptcy filing by the applicant prior to the expiration date of this letter of credit, the expiration date of this letter of credit will automatically be extended by one hundred twenty (120) calendar days from the expiration date.”

Exhibit D – Instructions for Payment and Performance Letter of Credit, is amended as follows:

- Item 3. “Banks shall fill in blanks except those in the drawing statements (Exhibit D, a. and b.). The drawing statements are in all capital letters. Do not fill in underlined blanks.”
- Item 4. “The information to be included and format to be used for a wire transfer as a deposit over the Fedwire Deposit System Network is included in the Notice of Sale. (See Attachment B)”

20. Contract Price Adjustment

- (a) The unit price for crude oil under the contract shall be the Delivery Reference Price (DRP) adjusted by the Price Adjustment Factor (PAF) as

provided in this provision, subject to any additional adjustments provided for elsewhere in the contract.

- (b) The terms used in this provision are defined as follows:

Base Reference Price (BRP)

- (1) The BRP for all SPR crude oil streams offered for sale is the average (to the \$0.0001) of the Daily Index Prices as computed by the Government from prices for the most recent five days on which trading activity occurred, ending two days before the date of the Notice of Sale.
- (2) For this Notice of Sale, the BRP is \$112.7800 for all SPR crude oil streams.

Daily Index Price (DIP)

The DIP applicable to all SPR sweet crude oil streams offered for sale is the volume-weighted average (to the \$0.001) of all trading day transactions assessed for the near month for Light Louisiana Sweet crude oil at St. James, LA, as published for the date by Petroleum Argus.

Delivery Reference Price (DRP) - The DRP is the average (to the \$0.0001) of the Daily Index Prices for the five days surrounding the delivery "price date" as stated in Block 7, "PRICE DATE", on the Strategic Petroleum Reserve Crude Oil Delivery Report: SPRPMO F-416.1-3.

- (1) For pipeline deliveries, the "price date" shall be the date the shipment completed at the custody transfer point, in accordance with SSP C.12, as amended by the Notice of Sale.
- (2) For vessel deliveries, the "price date" shall be the date vessel loading completed in accordance with SSP C.19.
- (3) The "five days surrounding the price date" means the following five days: The midday, day three, is the price date as determined above (unless such day is a day on which trading activity did not occur, in which case the midday shall be the succeeding day on which trading activity did occur), the two days preceding the midday of the five day period on which trading activity occurred and the two days succeeding the midday on which trading activity occurred.

Price Adjustment Factor (PAF) - The PAF is the purchaser's offered price minus the Base Reference Price (BRP). The PAF may be either positive or negative.

GENERIC EXAMPLES:

Delivery Reference Price + Price Adjustment Factor = Unit Price per Barrel  
(subject to any additional adjustments provided for elsewhere in the contract):

Example 1:

Assume: Offered Price = \$101.2534

BRP = \$101.0015 (5-day average specified in Notice of Sale)

PAF = + \$0.2519

DRP = \$101.5055 (5-day average surrounding price date)

Unit Price/bbl = \$101.5055 + \$0.2519, or \$101.7574

Example 2:

Assume: Offered Price = \$100.7564

BRP = \$101.0015 (5-day average specified in Notice of Sale)

PAF = - \$0.2451

DRP = \$101.5055 (5-day average surrounding price date)

Unit Price/bbl = \$101.5055 + (-\$0.2451), or \$101.2604

21. The West Hackberry Sweet stream may be treated with H<sub>2</sub>S scavenger. One of the following approved scavengers would be utilized for this purpose:

- EC9085A SULFA-CHECK ® H<sub>2</sub>S Scavenger – Mfg. NALCO
- MC MX 8-1519 – Mfg. MULTI CHEM
- ENVIRO SCRUB LM – Mfg. QUAKER
- GAS TREAT 157 – Mfg. CHAMPION TECHNOLOGIES, INC.
- GAS TREAT 159- Mfg. CHAMPION TECHNOLOGIES, INC.

ATTACHMENT A  
 CRUDE OIL QUANTITIES OFFERED FOR SALE  
 U. S. DEPARTMENT OF ENERGY - STRATEGIC PETROLEUM RESERVE

The crude oil streams, delivery mode and periods, daily maximum delivery capability, and quantities of crude oil offered in this sale are as follows:

MLI = Master Line Item/Crude Oil Stream  
 DLI = Delivery Line Item/Maximum Quantity per Delivery Mode and Period  
 MINQ = Minimum Contract Quantity Per DLI  
 MB = Thousand of Barrels  
 MBD = SPR's estimated daily maximum delivery limit capability for each delivery line item, consistent with current capabilities.

Crude Oil Stream <u>MLI</u>	DLI - Mode of Delivery	Delivery Period <u>Days</u>	MLI Qty <u>(MB)</u>	MBD <u>Limit</u>	DLI Qty <u>(MB)</u>	MIN Qty <u>(MB)</u>
Bryan Mound Sweet 001			10000			
	DLI-A Pipeline @ Jones Creek Tank Farm	01-31		400	10000	200
	DLI-B Vessel @ Freeport	01-31		400	10000	350
	DLI-H Pipeline @ Texas City	01-31		1000	10000	200
	DLI-I Vessel @ Texas City	01-31		300	9300	350
Crude Oil Stream <u>MLI</u>	DLI - Mode of Delivery	Delivery Period <u>Days</u>	MLI Qty <u>(MB)</u>	MBD <u>Limit</u>	DLI Qty <u>(MB)</u>	MIN Qty <u>(MB)</u>
West Hackberry Sweet 004			10000			
	DLI-A Pipeline @ Sun	01-31		775	10000	200
	DLI-B Vessel @ Sun	01-31		1085	10000	350
	DLI-E Barge @ Sun	01-15		90	1350	120
	DLI-H Pipeline @ Lake Charles Meter Station	01-31		520	10000	200

Crude Oil Stream <u>MLI</u> Big Hill Sweet 009	<u>DLI - Mode of Delivery</u>	<u>Delivery Period Days</u>	<u>MLI Qty (MB)</u>	<u>MBD Limit</u>	<u>DLI Qty (MB)</u>	<u>MIN Qty (MB)</u>
			10000			
	DLI-A Pipeline @ Sun	01-31		775	10000	200
	DLI-B Vessel @ Sun	01-31		1085	10000	350
	DLI-E Barge @ Sun	16-31		90	1440	120
	DLI-H Pipeline @ Unocal	01-31		30	1550	200
	DLI-I Vessel @ Unocal	01-31		200	6200	350
	DLI-L Pipeline @ Shell 20-inch Pipeline	01-31		180	5580	200

**Attachment B**

**INSTRUCTIONS FOR WIRE TRANSFER OF FUNDS**

Purchasers shall pay invoices by wire transfer of funds over the Fedwire Deposit System Network (FDS). Purchasers will provide the information in items 5, 7, and 8 to the sending bank, and the sending bank will provide the information in items 3, 4, and 6. All items MUST appear on all transfers as they appear below.

	<b>FIELD NAME</b>	<b>LENGTH</b>	<b>VALUE</b>
Item 1	Treasury Department Code	9	021030004
Item 2	Type-subtype-code	4	1000
Item 3	Sender-dfi#	9	Sender ABA-number
Item 4	Sender-ref-#	16	Filled by sender
Item 5	Amount	18	use dollar sign, commas, and decimal point
Item 6	Sender-dfi-info	80	Filled by sender
Item 7	Receiver-dfi-info	80	TREAS NYC/CTR/BNF=/AC- 89000001

THE RECEIVER-DFI-INFO FIELD IS OF CRITICAL IMPORTANCE. IT MUST APPEAR IN THE PRECISE MANNER SHOWN TO ALLOW FOR THE AUTOMATED PROCESSING AND CLASSIFICATION OF THE FUNDS TRANSFER MESSAGE

Item 8	Free-text-line-1	80	(Contract No.)
	Free-text-line-1	80	(Invoice No.)
	Free-text-line-1	80	(SPRCODR No.)



**Attachment C**  
**GRAVCAP TABLES**

DE-NS96-11PO97000  
Amendment 001

GRAVCAP, INC.  
ADJUSTMENT AUTHORIZATION

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN GRAVITY OF CRUDE PETROLEUM

WHITE CAP SYSTEM - BONITO PIPE LINE COMPANY - SHIP SHOAL SYSTEM - CAPLINE SYSTEM

API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL
10.0	1.250	16.0	2.150	22.0	3.050	28.0	3.950
10.1	1.265	16.1	2.165	22.1	3.065	28.1	3.965
10.2	1.280	16.2	2.180	22.2	3.080	28.2	3.980
10.3	1.295	16.3	2.195	22.3	3.095	28.3	3.995
10.4	1.310	16.4	2.210	22.4	3.110	28.4	4.010
10.5	1.325	16.5	2.225	22.5	3.125	28.5	4.025
10.6	1.340	16.6	2.240	22.6	3.140	28.6	4.040
10.7	1.355	16.7	2.255	22.7	3.155	28.7	4.055
10.8	1.370	16.8	2.270	22.8	3.170	28.8	4.070
10.9	1.385	16.9	2.285	22.9	3.185	28.9	4.085
11.0	1.400	17.0	2.300	23.0	3.200	29.0	4.100
11.1	1.415	17.1	2.315	23.1	3.215	29.1	4.115
11.2	1.430	17.2	2.330	23.2	3.230	29.2	4.130
11.3	1.445	17.3	2.345	23.3	3.245	29.3	4.145
11.4	1.460	17.4	2.360	23.4	3.260	29.4	4.160
11.5	1.475	17.5	2.375	23.5	3.275	29.5	4.175
11.6	1.490	17.6	2.390	23.6	3.290	29.6	4.190
11.7	1.505	17.7	2.405	23.7	3.305	29.7	4.205
11.8	1.520	17.8	2.420	23.8	3.320	29.8	4.220
11.9	1.535	17.9	2.435	23.9	3.335	29.9	4.235
12.0	1.550	18.0	2.450	24.0	3.350	30.0	4.250
12.1	1.565	18.1	2.465	24.1	3.365	30.1	4.265
12.2	1.580	18.2	2.480	24.2	3.380	30.2	4.280
12.3	1.595	18.3	2.495	24.3	3.395	30.3	4.295
12.4	1.610	18.4	2.510	24.4	3.410	30.4	4.310
12.5	1.625	18.5	2.525	24.5	3.425	30.5	4.325
12.6	1.640	18.6	2.540	24.6	3.440	30.6	4.340
12.7	1.655	18.7	2.555	24.7	3.455	30.7	4.355
12.8	1.670	18.8	2.570	24.8	3.470	30.8	4.370
12.9	1.685	18.9	2.585	24.9	3.485	30.9	4.385

**Attachment C**  
**GRAVCAP TABLES**

DE-NS96-11PO97000  
Amendment 001

API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL
13.0	1.700	19.0	2.600	25.0	3.500	31.0	4.400
13.1	1.715	19.1	2.615	25.1	3.515	31.1	4.415
13.2	1.730	19.2	2.630	25.2	3.530	31.2	4.430
13.3	1.745	19.3	2.645	25.3	3.545	31.3	4.445
13.4	1.760	19.4	2.660	25.4	3.560	31.4	4.460
13.5	1.775	19.5	2.675	25.5	3.575	31.5	4.475
13.6	1.790	19.6	2.690	25.6	3.590	31.6	4.490
13.7	1.805	19.7	2.705	25.7	3.605	31.7	4.505
13.8	1.820	19.8	2.720	25.8	3.620	31.8	4.520
13.9	1.835	19.9	2.735	25.9	3.635	31.9	4.535
14.0	1.850	20.0	2.750	26.0	3.650	32.0	4.550
14.1	1.865	20.1	2.765	26.1	3.665	32.1	4.565
14.2	1.880	20.2	2.780	26.2	3.680	32.2	4.580
14.3	1.895	20.3	2.795	26.3	3.695	32.3	4.595
14.4	1.910	20.4	2.810	26.4	3.710	32.4	4.610
14.5	1.925	20.5	2.825	26.5	3.725	32.5	4.625
14.6	1.940	20.6	2.840	26.6	3.740	32.6	4.640
14.7	1.955	20.7	2.855	26.7	3.755	32.7	4.655
14.8	1.970	20.8	2.870	26.8	3.770	32.8	4.670
14.9	1.985	20.9	2.885	26.9	3.785	32.9	4.685
15.0	2.000	21.0	2.900	27.0	3.800	33.0	4.700
15.1	2.015	21.1	2.915	27.1	3.815	33.1	4.715
15.2	2.030	21.2	2.930	27.2	3.830	33.2	4.730
15.3	2.045	21.3	2.945	27.3	3.845	33.3	4.745
15.4	2.060	21.4	2.960	27.4	3.860	33.4	4.760
15.5	2.075	21.5	2.975	27.5	3.875	33.5	4.775
15.6	2.090	21.6	2.990	27.6	3.890	33.6	4.790
15.7	2.105	21.7	3.005	27.7	3.905	33.7	4.805
15.8	2.120	21.8	3.020	27.8	3.920	33.8	4.820
15.9	2.135	21.9	3.035	27.9	3.935	33.9	4.835

**Attachment C**  
**GRAVCAP TABLES**

DE-NS96-11PO97000  
Amendment 001

GRAVCAP, INC.  
ADJUSTMENT AUTHORIZATION

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR  
DIFFERENCE IN GRAVITY OF CRUDE PETROLEUM

WHITE CAP SYSTEM - BONITO PIPE LINE COMPANY - SHIP SHOAL SYSTEM - CAPLINE SYSTEM

API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL
34.0	4.850	40.0	5.100	46.0	4.950	52.0	4.050
34.1	4.865	40.1	5.100	46.1	4.935	52.1	4.035
34.2	4.880	40.2	5.100	46.2	4.920	52.2	4.020
34.3	4.895	40.3	5.100	46.3	4.905	52.3	4.005
34.4	4.910	40.4	5.100	46.4	4.890	52.4	3.990
34.5	4.925	40.5	5.100	46.5	4.875	52.5	3.975
34.6	4.940	40.6	5.100	46.6	4.860	52.6	3.960
34.7	4.955	40.7	5.100	46.7	4.845	52.7	3.945
34.8	4.970	40.8	5.100	46.8	4.830	52.8	3.930
34.9	4.985	40.9	5.100	46.9	4.815	52.9	3.915
35.0	5.000	41.0	5.100	47.0	4.800	53.0	3.900
35.1	5.000	41.1	5.100	47.1	4.785	53.1	3.885
35.2	5.000	41.2	5.100	47.2	4.770	53.2	3.870
35.3	5.000	41.3	5.100	47.3	4.755	53.3	3.855
35.4	5.000	41.4	5.100	47.4	4.740	53.4	3.840
35.5	5.000	41.5	5.100	47.5	4.725	53.5	3.825
35.6	5.000	41.6	5.100	47.6	4.710	53.6	3.810
35.7	5.000	41.7	5.100	47.7	4.695	53.7	3.795
35.8	5.000	41.8	5.100	47.8	4.680	53.8	3.780
35.9	5.000	41.9	5.100	47.9	4.665	53.9	3.765
36.0	5.020	42.0	5.100	48.0	4.650	54.0	3.750
36.1	5.020	42.1	5.100	48.1	4.635	54.1	3.735
36.2	5.020	42.2	5.100	48.2	4.620	54.2	3.720
36.3	5.020	42.3	5.100	48.3	4.605	54.3	3.705
36.4	5.020	42.4	5.100	48.4	4.590	54.4	3.690
36.5	5.020	42.5	5.100	48.5	4.575	54.5	3.675
36.6	5.020	42.6	5.100	48.6	4.560	54.6	3.660
36.7	5.020	42.7	5.100	48.7	4.545	54.7	3.645
36.8	5.020	42.8	5.100	48.8	4.530	54.8	3.630
36.9	5.020	42.9	5.100	48.9	4.515	54.9	3.615

**Attachment C**  
**GRAVCAP TABLES**

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API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL	API GRAVITY	DIFF. PER BBL
37.0	5.040	43.0	5.100	49.0	4.500	55.0	3.600
37.1	5.040	43.1	5.100	49.1	4.485	For API GRAVITY values above 55.0° API the differential continues to decline 0.015/bbl. per 0.1° API GRAVITY.	
37.2	5.040	43.2	5.100	49.2	4.470		
37.3	5.040	43.3	5.100	49.3	4.455		
37.4	5.040	43.4	5.100	49.4	4.440		
37.5	5.040	43.5	5.100	49.5	4.425		
37.6	5.040	43.6	5.100	49.6	4.410		
37.7	5.040	43.7	5.100	49.7	4.395		
37.8	5.040	43.8	5.100	49.8	4.380		
37.9	5.040	43.9	5.100	49.9	4.365		
38.0	5.060	44.0	5.100	50.0	4.350		
38.1	5.060	44.1	5.100	50.1	4.335		
38.2	5.060	44.2	5.100	50.2	4.320		
38.3	5.060	44.3	5.100	50.3	4.305		
38.4	5.060	44.4	5.100	50.4	4.290		
38.5	5.060	44.5	5.100	50.5	4.275		
38.6	5.060	44.6	5.100	50.6	4.260		
38.7	5.060	44.7	5.100	50.7	4.245		
38.8	5.060	44.8	5.100	50.8	4.230		
38.9	5.060	44.9	5.100	50.9	4.215		
39.0	5.080	45.0	5.100	51.0	4.200		
39.1	5.080	45.1	5.085	51.1	4.185		
39.2	5.080	45.2	5.070	51.2	4.170		
39.3	5.080	45.3	5.055	51.3	4.155		
39.4	5.080	45.4	5.040	51.4	4.140		
39.5	5.080	45.5	5.025	51.5	4.125		
39.6	5.080	45.6	5.010	51.6	4.110		
39.7	5.080	45.7	4.995	51.7	4.095		
39.8	5.080	45.8	4.980	51.8	4.080		
39.9	5.080	45.9	4.965	51.9	4.065		

**Attachment C**  
**GRAVCAP TABLES**

DE-NS96-11PO97000  
Amendment 001

GRAVCAP, INC.

ADJUSTMENT AUTHORIZATION

TABLES OF DIFFERENTIALS FOR USE IN DETERMINING ADJUSTMENTS FOR

DIFFERENCE IN SULFUR CONTENT FOR CRUDE PETROLEUM

WHITE CAP SYSTEM - BONITO PIPE LINE COMPANY - SHIP SHOAL SYSTEM - CAPLINE SYSTEM

PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL
0.00	1.000	0.60	1.600	1.20	2.200	1.80	2.800	2.40	3.400	3.00	4.000	3.60	4.600
0.01	1.010	0.61	1.610	1.21	2.210	1.81	2.810	2.41	3.410	3.01	4.010	3.61	4.610
0.02	1.020	0.62	1.620	1.22	2.220	1.82	2.820	2.42	3.420	3.02	4.020	3.62	4.620
0.03	1.030	0.63	1.630	1.23	2.230	1.83	2.830	2.43	3.430	3.03	4.030	3.63	4.630
0.04	1.040	0.64	1.640	1.24	2.240	1.84	2.840	2.44	3.440	3.04	4.040	3.64	4.640
0.05	1.050	0.65	1.650	1.25	2.250	1.85	2.850	2.45	3.450	3.05	4.050	3.65	4.650
0.06	1.060	0.66	1.660	1.26	2.260	1.86	2.860	2.46	3.460	3.06	4.060	3.66	4.660
0.07	1.070	0.67	1.670	1.27	2.270	1.87	2.870	2.47	3.470	3.07	4.070	3.67	4.670
0.08	1.080	0.68	1.680	1.28	2.280	1.88	2.880	2.48	3.480	3.08	4.080	3.68	4.680
0.09	1.090	0.69	1.690	1.29	2.290	1.89	2.890	2.49	3.490	3.09	4.090	3.69	4.690
0.10	1.100	0.70	1.700	1.30	2.300	1.90	2.900	2.50	3.500	3.10	4.100	3.70	4.700
0.11	1.110	0.71	1.710	1.31	2.310	1.91	2.910	2.51	3.510	3.11	4.110	3.71	4.710
0.12	1.120	0.72	1.720	1.32	2.320	1.92	2.920	2.52	3.520	3.12	4.120	3.72	4.720
0.13	1.130	0.73	1.730	1.33	2.330	1.93	2.930	2.53	3.530	3.13	4.130	3.73	4.730
0.14	1.140	0.74	1.740	1.34	2.340	1.94	2.940	2.54	3.540	3.14	4.140	3.74	4.740
0.15	1.150	0.75	1.750	1.35	2.350	1.95	2.950	2.55	3.550	3.15	4.150	3.75	4.750
0.16	1.160	0.76	1.760	1.36	2.360	1.96	2.960	2.56	3.560	3.16	4.160	3.76	4.760
0.17	1.170	0.77	1.770	1.37	2.370	1.97	2.970	2.57	3.570	3.17	4.170	3.77	4.770
0.18	1.180	0.78	1.780	1.38	2.380	1.98	2.980	2.58	3.580	3.18	4.180	3.78	4.780
0.19	1.190	0.79	1.790	1.39	2.390	1.99	2.990	2.59	3.590	3.19	4.190	3.79	4.790
0.20	1.200	0.80	1.800	1.40	2.400	2.00	3.000	2.60	3.600	3.20	4.200	3.80	4.800
0.21	1.210	0.81	1.810	1.41	2.410	2.01	3.010	2.61	3.610	3.21	4.210	3.81	4.810
0.22	1.220	0.82	1.820	1.42	2.420	2.02	3.020	2.62	3.620	3.22	4.220	3.82	4.820
0.23	1.230	0.83	1.830	1.43	2.430	2.03	3.030	2.63	3.630	3.23	4.230	3.83	4.830
0.24	1.240	0.84	1.840	1.44	2.440	2.04	3.040	2.64	3.640	3.24	4.240	3.84	4.840
0.25	1.250	0.85	1.850	1.45	2.450	2.05	3.050	2.65	3.650	3.25	4.250	3.85	4.850
0.26	1.260	0.86	1.860	1.46	2.460	2.06	3.060	2.66	3.660	3.26	4.260	3.86	4.860
0.27	1.270	0.87	1.870	1.47	2.470	2.07	3.070	2.67	3.670	3.27	4.270	3.87	4.870
0.28	1.280	0.88	1.880	1.48	2.480	2.08	3.080	2.68	3.680	3.28	4.280	3.88	4.880
0.29	1.290	0.89	1.890	1.49	2.490	2.09	3.090	2.69	3.690	3.29	4.290	3.89	4.890

**Attachment C  
GRAVCAP TABLES**

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Amendment 001

PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL	PERCENT SULFUR	DIFF. PER BBL
0.30	1.300	0.90	1.900	1.50	2.500	2.10	3.100	2.70	3.700	3.30	4.300	3.90	4.900
0.31	1.310	0.91	1.910	1.51	2.510	2.11	3.110	2.71	3.710	3.31	4.310	3.91	4.910
0.32	1.320	0.92	1.920	1.52	2.520	2.12	3.120	2.72	3.720	3.32	4.320	3.92	4.920
0.33	1.330	0.93	1.930	1.53	2.530	2.13	3.130	2.73	3.730	3.33	4.330	3.93	4.930
0.34	1.340	0.94	1.940	1.54	2.540	2.14	3.140	2.74	3.740	3.34	4.340	3.94	4.940
0.35	1.350	0.95	1.950	1.55	2.550	2.15	3.150	2.75	3.750	3.35	4.350	3.95	4.950
0.36	1.360	0.96	1.960	1.56	2.560	2.16	3.160	2.76	3.760	3.36	4.360	3.96	4.960
0.37	1.370	0.97	1.970	1.57	2.570	2.17	3.170	2.77	3.770	3.37	4.370	3.97	4.970
0.38	1.380	0.98	1.980	1.58	2.580	2.18	3.180	2.78	3.780	3.38	4.380	3.98	4.980
0.39	1.390	0.99	1.990	1.59	2.590	2.19	3.190	2.79	3.790	3.39	4.390	3.99	4.990
0.40	1.400	1.00	2.000	1.60	2.600	2.20	3.200	2.80	3.800	3.40	4.400	4.00	5.000
0.41	1.410	1.01	2.010	1.61	2.610	2.21	3.210	2.81	3.810	3.41	4.410		
0.42	1.420	1.02	2.020	1.62	2.620	2.22	3.220	2.82	3.820	3.42	4.420		
0.43	1.430	1.03	2.030	1.63	2.630	2.23	3.230	2.83	3.830	3.43	4.430		
0.44	1.440	1.04	2.040	1.64	2.640	2.24	3.240	2.84	3.840	3.44	4.440		
0.45	1.450	1.05	2.050	1.65	2.650	2.25	3.250	2.85	3.850	3.45	4.450		
0.46	1.460	1.06	2.060	1.66	2.660	2.26	3.260	2.86	3.860	3.46	4.460		
0.47	1.470	1.07	2.070	1.67	2.670	2.27	3.270	2.87	3.870	3.47	4.470		
0.48	1.480	1.08	2.080	1.68	2.680	2.28	3.280	2.88	3.880	3.48	4.480		
0.49	1.490	1.09	2.090	1.69	2.690	2.29	3.290	2.89	3.890	3.49	4.490		
0.50	1.500	1.10	2.100	1.70	2.700	2.30	3.300	2.90	3.900	3.50	4.500		
0.51	1.510	1.11	2.110	1.71	2.710	2.31	3.310	2.91	3.910	3.51	4.510		
0.52	1.520	1.12	2.120	1.72	2.720	2.32	3.320	2.92	3.920	3.52	4.520		
0.53	1.530	1.13	2.130	1.73	2.730	2.33	3.330	2.93	3.930	3.53	4.530		
0.54	1.540	1.14	2.140	1.74	2.740	2.34	3.340	2.94	3.940	3.54	4.540		
0.55	1.550	1.15	2.150	1.75	2.750	2.35	3.350	2.95	3.950	3.55	4.550		
0.56	1.560	1.16	2.160	1.76	2.760	2.36	3.360	2.96	3.960	3.56	4.560		
0.57	1.570	1.17	2.170	1.77	2.770	2.37	3.370	2.97	3.970	3.57	4.570		
0.58	1.580	1.18	2.180	1.78	2.780	2.38	3.380	2.98	3.980	3.58	4.580		
0.59	1.590	1.19	2.190	1.79	2.790	2.39	3.390	2.99	3.990	3.59	4.590		

For Sulfur Values  
above 4.00%, the  
differential continues  
to increase 0.01/BBL  
per 0.01 Percent  
Sulfur