

CONCEPT PAPER FOR THE INDIAN OIL VALUATION NEGOTIATED RULEMAKING COMMITTEE

Higher of Gross Proceeds or Index Price Methodology
Based on NYMEX Calendar Month Average (CMA)
Adjusted for a Fixed Location and Quality Differential

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Concept

- Consistent with Indian lease terms, value would be based on the higher of:
 - The lessee's or its affiliate's gross proceeds, OR
 - A NYMEX-based index price adjusted for a published differential to the closest market center and adjusted for a fixed differential from the market center to the reservation.
- In advance of February 28 of each calendar year**, ONRR would calculate and publish an annual fixed differential for each reservation based on the difference between:
 - The previous year's monthly major portion price calculated using the gross proceeds reported for that reservation and determining the price at which 25% + 1 barrel (starting from the top) of oil was sold.
 - A NYMEX CMA price at Cushing, OK adjusted for the published location and quality differential to the nearest market center and adjusted for the fixed differential to the reservation published by ONRR.
- Each month, the lessee would report both the NYMEX-based index price and their gross proceeds and pay royalties on the higher of the two.
- Lessee's would also report API gravity and crude oil type by lease, each month on the Form MMS-2014.
- **Note that February 28 represents the due date for January production.

Example of Major Portion Calculation

- Assume for Reservation A that ONRR would calculate a major portion price at the 25th percentile (starting at the top) for each month in 2010 using lessees' reported gross proceeds. Specifically, ONRR would:
 - Calculate the unit price normalized for API gravity for each oil type and net of any transportation reported for each royalty line each month.
 - Array all royalty lines for each month from highest price (starting at the top) to lowest price (at the bottom) along with the associated sales volume.
 - Start from the top, and sum the sales volumes until we reached the 25th percentile by volume, and determine the unit price associated with the 25th percentile for that reservation for each month.

January 2010 Major Portion Calculation

Sales Volume	Sales Value - Transportation	Price	% of Total Volume
250 bbls	\$19,062.50	\$76.25	14.49%
150 bbls	\$11,325.00	\$75.50	23.19%
125 bbls	\$9,375.00	\$75.00	30.44%
175 bbls	\$13,125.00	\$75.00	40.58%
300 bbls	\$22,500.00	\$75.00	57.97%
110 bbls	\$8,222.50	\$74.75	64.35%
225 bbls	\$16,762.50	\$74.50	77.39%
100 bbls	\$7,450.00	\$74.50	83.19%
200 bbls	\$14,850.00	\$74.25	94.78%
90 bbls	\$6,682.50	\$74.25	100.00%
Total 1725 bbls			

Applying the Average Differential for CY 2010 to CY 2011

The calculated average differential price for 2011 is **-\$6.355/ barrel.**

- Before February 28, 2011, ONRR would calculate and publish the average difference between the 25% major portion price and the closest market center price.
- In this case the 2010 published differential for Reservation A is minus \$6.355/barrel.
- The \$6.355/barrel 2010 published differential would be used by lessees in 2011 to adjust their 2011 monthly market center price that they compare to their gross proceeds.

Note: As an option to consider, assuming we had the data to do so, ONRR could calculate and publish the differential on a quarterly basis.

Example of the Calculation of the Average Yearly Differential Between the Closest Market Center Price and the Major Portion Price

Month/Year	NYMEX CMA	Published Differential to closest Market Center	Closest Market Center Price	Major Portion Price at 25%	Monthly Differential
Jan-2010	\$89.58	-\$6.23	\$83.35	76.17	-7.18
Feb-2010	\$89.74	-\$3.97	\$85.77	78.32	-7.45
Mar-2010	\$102.98	-\$3.18	\$99.80	92.11	-7.69
Apr-2010	\$110.04	-\$3.99	\$106.05	100.48	-5.57
May-2010	\$101.36	-\$4.27	\$97.09	90.73	-6.36
Jun-2010	\$96.29	-\$1.95	\$94.34	89.55	-4.79
Jul-2010	\$97.34	\$4.38	\$101.72	95.98	-5.74
Aug-2010	\$86.34	\$4.61	\$90.95	84.78	-6.17
Sep-2010	\$85.61	\$6.00	\$91.61	84.12	-7.49
Oct-2010	\$86.43	\$4.53	\$90.96	84.59	-6.37
Nov-2010	\$97.16	\$4.48	101.64	96.45	-5.19
Dec-2010	\$98.58	-\$2.96	95.62	89.36	-6.26
				Avg Diff	-6.355

Comparison of the Gross Proceeds Value v. NYMEX-based Formula Value

Assume for January 2011:

- A lessee's gross proceeds for production from Reservation A is \$74/barrel
- The NYMEX CMA for January 2011 is \$88/barrel
- The published location and quality differential between Cushing, OK and the nearest market center is minus \$3/barrel.

For January 2011 production, the lessee would report and pay on the higher of:

- Gross proceeds (**\$74/barrel**) **OR**
- The NYMEX CMA adjusted for location and quality between Cushing, OK and the near market center and adjusted for the ONRR-published differential (**\$88/bbl - \$3/bbl - \$6.36/bbl. = \$78.64/barrel**).