

Santa Barbara County Mineral Owner Royalty Value Assessment

Preliminary valuation of the potential income at stake for the county's mineral and royalty owners

THE PROPOSED ORDINANCE: bans new drilling · bars re-entry of abandoned wells · phases out existing production through amortization (study underway)

DATE

July 23, 2026

Prepared for NARO-CA

ESTIMATED ROYALTY VALUE AT STAKE FOR MINERAL & ROYALTY OWNERS

\$966 Million

Present value of the mineral and royalty owners' potential income stream from Santa Barbara County's remaining recoverable oil, discounted at 5% (PV5)

PV5 is the standard pricing convention for acquisitions of mineral royalty interests in the United States, supported by Numeric Solutions' own transaction experience.

Modeled flat at \$64/bbl — 90% of Brent as of July 1; Brent is currently near \$96.

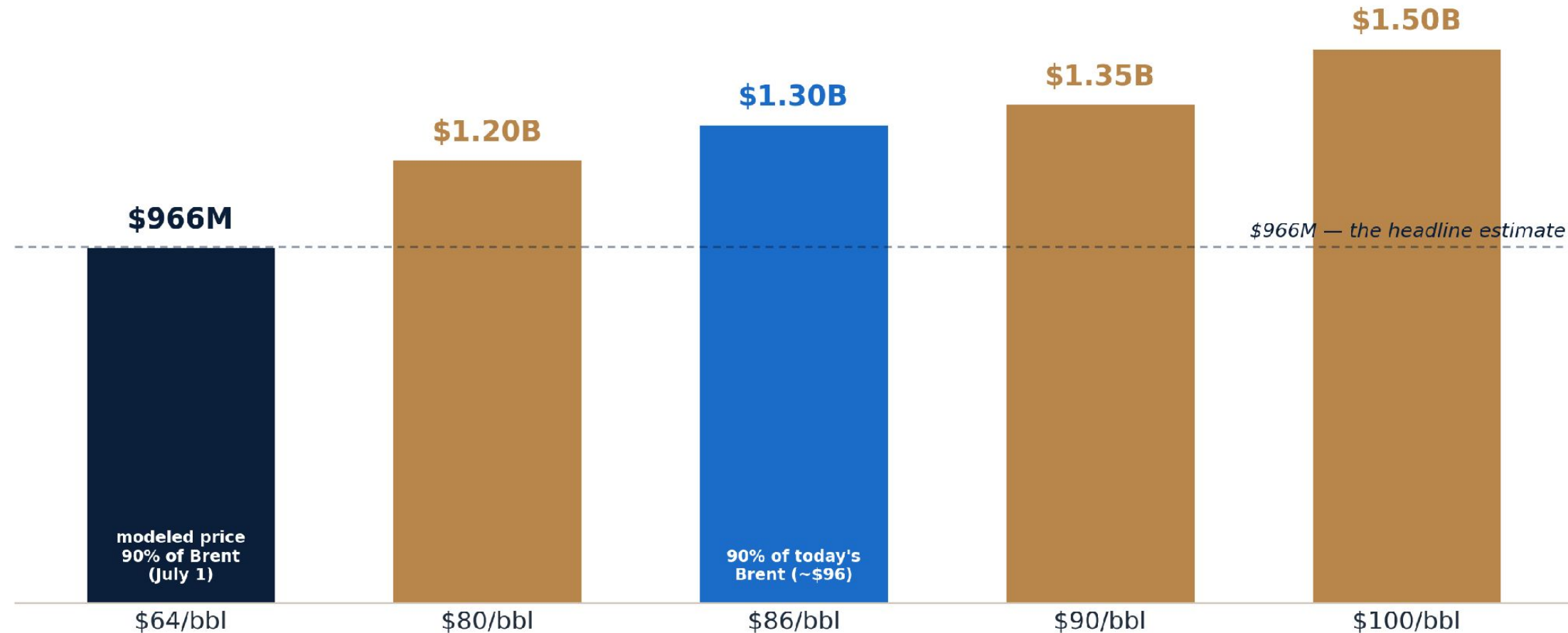
Value scales approximately with price: ~\$1.2B at \$80 • ~\$1.35B at \$90 • ~\$1.5B at \$100 per barrel.

Discount-rate sensitivity: \$477M at PV10.

Prepared by Numeric Solutions LLC. Numeric Solutions LLC is a geoscience and engineering advisory firm founded in 1999, providing technical and regulatory consulting across the energy and water sectors — including oil and gas reserves analysis, regulatory compliance, and carbon storage. The firm serves oil and gas operators, energy-sector investors, mineral owners, and land management companies.

Conservative at today's oil prices

The estimate is priced at \$64 per barrel — Brent has since risen to roughly \$96



Approximate: royalty income, scales in proportion to price and higher prices also extend field economic life (not credited here). The estimate also excludes the ~\$159M (PV5) income stream from existing wells, which a full phase-out would separately shut in.

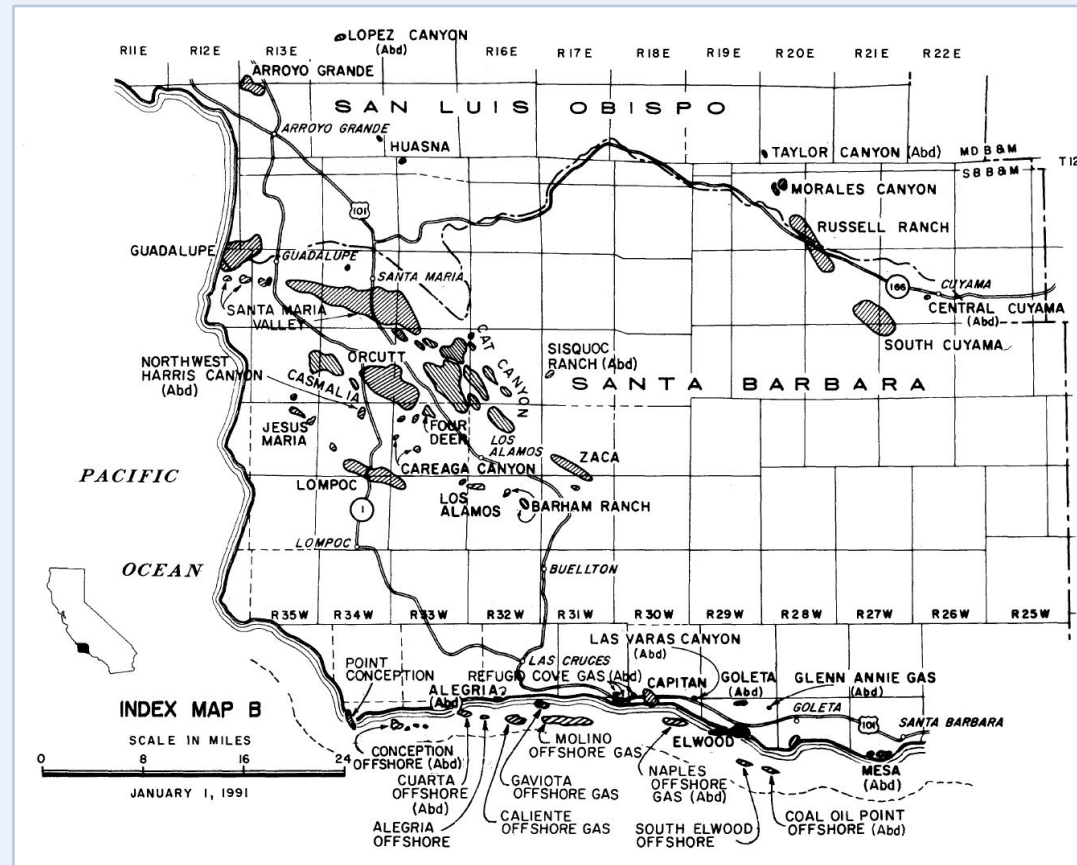
Methodology

Standard petroleum volumetrics and resources/reserve analysis, applied to public data

- Oil in place is computed field-by-field from the State of California's published reservoir data (the CalGEM "Gold Book"), and production to date is reconstructed from state records from each field's discovery through March 2026.
- Remaining recoverable oil assumes a **15%** recovery factor — a level already demonstrated by Santa Barbara County fields producing today.
- Oil price: \$64 per barrel (90% of the Brent benchmark).
- Mineral owners' royalty share: **1/7** — between the typical 1/8 and 1/6 lease royalty.
- Production is forecast monthly over 100 years, with fields cut off at their economic limits, and the royalty income stream is discounted at 5% (PV5).

Why this value is achievable. Recovery technology has advanced far beyond the county's 1980s production peak — horizontal and multilateral wells, enhanced oil recovery — and the analysis never allows production to exceed recoverable reserves.

EXAMPLE STATE DATA USED IN THE ANALYSIS



CalGEM "Gold Book" — county oil-field index map and the Santa Maria Valley field data sheet, the source of the reservoir parameters used to derive original oil in place.

COUNTY: SANTA BARBARA			SANTA MARIA VALLEY OIL FIELD MAIN AREA				
DISCOVERY WELL AND DEEPEST WELL							
	Present operator and well designation	Original operator and well designation	Sec. T. & R.	R.A.M.	Total depth (feet)	Pool (zone)	Strata & age at total depth
Discovery well	Union Oil Co. of Calif. "Moretti" 1-1	Same as present	24 10N 34W	S8	2,389	Foam-Sisquoc-Norberry	Franciscan Cretaceous
Deepest well	Union Oil Co. of Calif. "Paderewski" 1-29	Same as present	29 10N 34W	S8	7,873		
POOL DATA							
ITEM	FOAM	SISQUOC	NORBERY	POINT SAL	FIELD OR AREA DATA		
Discovery date	July 1934	July 1934	July 1934	March 1936			
Initial production rates							
Oil (Mbl/day)	5/	5/	42/	2,760/			
Gas (Mcf/day)	-	-	-	56			
Flow pressure (psig)							
Brain size (in.)							
Initial reservoir pressure (psig)							
Reservoir temperature (°F)							
Initial oil content (STB/acre-ft)							
Initial gas content (MSCF/acre-ft)							
Formation	Foam	Sisquoc	Norberry	Point Sal			
Geologic age	Pliocene	Pliocene	Monterey	Monterey			
Average depth (ft)	2,000	3,330	3,360	4,230			
Average net thickness (ft)	200	75	160	300			
Maximum productive area (acres)					6,720		
RESERVOIR ROCK PROPERTIES							
Porosity (%)	34-40	20-30***	fractured shale	15-24			
Seal (%)	31-57	30-40	-	60			
Seal (ft)	43-69	60-70	-	40			
Seal (ft)	45-1,540	800-2,000	-	54-68			
RESERVOIR FLUID PROPERTIES							
Oil gravity (°API)	16.5	12.0-17.0	12.0-17.0	15.0			
Surface tension (dyne/cm)	-	-	-	-			
Initial solution GOR (SCF/STB)	-	-	-	-			
Initial oil FVF (RB/STB)	-	-	-	-			
Bubble point pressure (psig)	-	-	-	15-30 @ 185			
Viscosity (cp) @ 70°	-	-	-	-			
Gas							
Specific gravity (air = 1.0)	-	-	-	-			
Heating value (Btu/cu. ft)	-	-	-	-			
Water							
Salinity, NaCl (ppm)	5,000	24,770	18,175-24,635	23,600			
TDS (ppm)	-	90,000	87,433-94,086	89,700			
R _w (ohm-in) (77°F)	1.15	0.25	0.21-0.53	0.18			
ENHANCED RECOVERY PROJECTS							
Enhanced recovery projects	steamflood	waterflood	waterflood	waterflood			
Date started	1966	1952	1953	1956			
Date discontinued	1970	-	-	active fireflood			
				1964			
				1966			
Peak oil production (Mbl)					13,864,517		
Year					1982		
Peak gas production, net (Mcf)					15,273		
Year					1947		
Base of fresh water (ft): 2,000							
Remarks:	1/ Monterey pool includes the Arenaceous, Cherty, Bentonitic Brown, Buff and Brown, and Dark Brown zones. 2/ Point Sal pool includes the Oil Sand, and Siltstone and Shell zones. 3/ Completed production from Foam, Sisquoc, and Monterey zones. 4/ Production completed with Monterey. 5/ An. Assoc. Petroleum Geologists, 1948, Correlation Section Across Santa Maria Basin. 6/ California, C.G., 1939, Santa Maria Valley Oil Field: Calif. State Div. of Mines, Bull. 118, p. 440. 7/ California, C.G., 1939, Subsurface Stratigraphy of Santa Maria Valley Oil Field and Adjacent Parts of The Santa Maria Valley, California: An. Assoc. Petroleum Geologists Bull., vol. 23, No. 1. 8/ Frame, R., 1955, Santa Maria Valley Oil Field: Calif. Div. of Oil and Gas, Summary of Operations-Calif. Oil Fields, Vol. 24, No. 3. 9/ Porter, W.A., 11, 1937, Santa Maria Valley—Another Great Field: Petroleum World, July 1937. 10/ Rogers, J.L., et al., and J.A. Hughes, 1982, Fractured Reservoirs of Santa Maria District, California: An. Assoc. Petroleum Geologists Bull., vol. 33, No. 1, p. 32.						
Selected References:	An. Assoc. Petroleum Geologists Bull., 1948, Correlation Section Across Santa Maria Basin. California, C.G., 1939, Santa Maria Valley Oil Field: Calif. State Div. of Mines, Bull. 118, p. 440. California, C.G., 1939, Subsurface Stratigraphy of Santa Maria Valley Oil Field and Adjacent Parts of The Santa Maria Valley, California: An. Assoc. Petroleum Geologists Bull., vol. 23, No. 1. Frame, R., 1955, Santa Maria Valley Oil Field: Calif. Div. of Oil and Gas, Summary of Operations-Calif. Oil Fields, Vol. 24, No. 3. Porter, W.A., 11, 1937, Santa Maria Valley—Another Great Field: Petroleum World, July 1937. Rogers, J.L., et al., and J.A. Hughes, 1982, Fractured Reservoirs of Santa Maria District, California: An. Assoc. Petroleum Geologists Bull., vol. 33, No. 1, p. 32.						
DATE: January 1989 ***representative value for area, formation, and depth CALIFORNIA DIVISION OF OIL AND GAS							

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SOURCES

- California Oil & Gas Fields (“Gold Book”) — CalGEM/DOGGR reservoir parameters, cited to the page for every field.
- DOGGR 2009 Annual Report — cumulative production from each field's discovery through 2009.
- Operator-reported monthly production (CalGEM public filings), January 1977 – March 2026.
- CalGEM GIS field outlines — independent cross-check of field areas.
- Brent crude benchmark — market reference for the oil price.

Transparent and independently verifiable. The analysis relies exclusively on public records. Each figure traces to a cited source or a documented calculation in the model workbook, which serves as the audit trail for the assessment.

The methodology is fully documented, supporting independent verification and consistent application to other California counties.

Conclusion

Santa Barbara County's Proposed Oil & Gas Phase-Out — The Royalty Value at Stake

Higher peak oil production and recovery levels have been deliberately blocked by subjective excessive regulation and government overreach, not by technical constraints or need.

This assessment only evaluates the value at stake for the mineral and royalty interest owners and does not take into consideration the potential damages to the business enterprise value of the producers. Such additional damages would most likely be two or three times greater than those of the mineral and royalty owners' interests alone.

SCOPE & LIMITATIONS

- Preliminary technical valuation — not a legal takings opinion. It does not opine on liability, causation, or any party's legal entitlement to compensation.
- Other factors independently constrain production. SB 1137 setbacks, permitting delays, and the broader regulatory and market climate already suppress investment and production; those effects overlap with, and are not additive to, this estimate. The value shown is a benchmark of what a county-wide phase-out could foreclose — approximately what these mineral interests would be worth under a development-supportive regulatory environment — not a forecast of what will be drilled.
- Discovered resources only — with identified upside. The estimate covers only resources already documented in State records at a 15% recovery factor; it excludes undiscovered potential, identified-but-unmodeled resources (Lompoc and Careaga diatomite, Monterey enhanced oil recovery), gains from recovery technologies not yet fully applied in the county, and royalty income from existing wells that a full phase-out would shut in. Technology has repeatedly re-rated mineral values: acreage in Midland County, Texas of marginal value in 2000 became worth many multiples once horizontal drilling and hydraulic fracturing matured.
- Preliminary and assumption-driven. All inputs — recovery factor, development factor, oil price, royalty share, discount rate — are documented and adjustable in the model workbook, and the value reflows accordingly.