NSL 8/24/98



July 30, 1998

**Chevron U.S.A. Production Company** P.O. Box 1150 Midland, TX 79702

## **Administrative Order NSL-4048(BHL)**

Revision to Administrative Application For Unorthodox Oil Well Location Scott "E" Federal #1 - Re-entry and Sidetrack 1148' FSL and 775' FWL Section 28, T-18-S, R-32-E North Lusk Strawn Pool Lea County, New Mexico



State of New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87504

Attn.: Michael Stogner

Dear Mr. Stogner:

Chevron USA respectfully requests your approval for the revision of this administrative application for the subject Unorthodox Oil Well Location in the North Lusk Strawn Pool.

Chevron submitted the original Unorthodox location request on February 18, 1998, and it was approved on June 2, 1998, under Administrative Order NSL-4048(BHL) (copy attached).

The well was reentered on July 1, 1998, with the sidetrack finished on July 26, 1998. During the build portion of the wellbore, the angle increased beyond what was intended and decreased slower than anticipated during the drop portion of the wellbore. The net result is that the bottom hole location is outside the target area to the east. The east limit of the target was 200' east of the surface location, and the actual location of the wellbore at TD is 211' east with a maximum distance of 233' east of the surface location. A table of the deviation and calculations are attached for your use.

Chevron-operated leases surround the re-entered well in all directions except southwest. Santa Fe Energy operates the lease to the southwest, and they were notified of the original non-standard proposal. By virtue of being 1148' FSL, the non-standard location for the Scott #1 will not



encroach on Santa Fe's lease. The lease that will be encroached upon is Chevron's lease to the east.

Per the telephone discussion between Michael Stogner (New Mexico Oil Conservation Division) and Lloyd Trautman (Chevron) on July 15, 1998, this letter is to request an unorthodox location to the east.

Attachments include: copy of Administrative Order NSL-4048(BHL) and deviation record with calculations. If you have any questions or require any further information concerning this application, please contact me at (915) 687-7152.

Sincerely,

Lloyd Trautman

Sr. Petroleum Engineer - New Mexico Area

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Attachments

cc: NMOCD -- Hobbs, NM

Heyco – Attn: Frank Messa

T. R. Denny

L. V. Trautman

G. W. Tullos

J. E. Baca

Central Files



June 2, 1998

Chevron U.S.A. Production Company P. O. Box 1150 Midland, Texas 79702 Attention: Dave Rittersbacher

Administrative Order NSL-4048(BHL)

Dear Mr. Rittersbacher:

Reference is made to your application dated February 18, 1998, for a non-standard subsurface oil producing area/bottomhole oil well location, pursuant to Rules 104.F and 111.C(2) of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), to be applicable to the Undesignated North Lusk-Strawn Pool underlying a standard 40-acre oil spacing and proration unit comprising the SW/4 SW/4 (Unit M) of Section 28, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, for the existing Scott "E" Federal Well No. 1 (API No. 30-025-27442).

It is our understanding that said well was originally drilled by Gulf Oil Company in 1981 to a total depth of 13,100 feet and was subsequently completed within the Querecho Plains-Lower Bone Spring Pool. In 1993 after producing a total of 18,436 barrels of oil and 34,811 MCF of gas said well was plugged and abandoned.

Chevron U.S.A. Production Company ("Chevron") and Division records indicate that this well was originally staked at a standard oil well location 1980 feet from the South and West lines (Unit K) of said Section 28.

A resurvey by Chevron in January, 1998 shows the actual surface location of this well to be 1148 feet from the South line and 775 feet from the West line (Unit M) of said Section 28.

Per your application, Chevron, at this time, intends to reenter the wellbore, kick off from vertical in an easterly direction, and directionally drill to a bottomhole location within the Strawn formation at an unorthodox bottomhole location in order to: (i) avoid the severed 5-1/2 inch casing stub at an approximate depth of 7,667 feet; and, (ii) penetrate the small localized highly porous algal reef mound within the Strawn formation underlying the SW/4 of said Section 28 at a more favorable geologic position on its eastern flank.

The applicable drilling window or "producing area" within the Undesignated North Lusk-Strawn Pool, as requested by Chevron, for said wellbore shall include that area within the subject 40-acre oil spacing and proration unit comprising the SW/4 SW/4 (Unit M) of said Section 28 that

- no closer than 330 feet to the east, south, and west (a) boundaries of said unit; and,
- no closer than 72 feet to the northern boundary of **(b)** said unit.

By the authority granted me under the provisions of Division General Rule 104.F(2), the above-described non-standard subsurface oil producing area/bottomhole oil well location is hereby approved.

The operator shall comply with all provisions of Division General Rule 111 applicable in this matter.

Sincerely,

notenberg.

Director

LW/MES/kv

New Mexico Oil Conservation Division - Hobbs cc:

New Mexico State Land Office - Santa Fe

## **Directional Survey Data**

Version 2

90 Vertical Section Orientation METHOD OF CALCULATION: MINIMIUM RADIUS OF CURVATURE CORRECTION: 9.20

	MEASURED		DIRECTION	<u> </u>		Bit			VERTICAL	COORE	INATES	DOG LEG	REMARKS
DATE	DEPTH	ANGLE	AZIMUTH	WOB	RPM		ВНА	TVD	SECTION	N or S	E or W	SEVERITY	
5,112	7,470	1.05	264.1					7,468.2	-38.9	S 8.29	W 38.94	0.00	
*	7,535	1.70	294.3					7,533.2	-40.4	S 7.95	W 40.41	1.47	
	7,580	1.00	345.6	l				7,578.2	-41.1	S 7.30	W 41.12	2.95	
	7,642	4.00	80.2	-				7,640.2	-39.1	S 6.41	W 39.12	6.77	
	7,673	4.40	77.8					7,671.1	-36.9	S 5.97	W 36.89	1.41	
	7,766	7.60	86.2					7,763.6	-27.3	S 4.81	W 27.27	3.56	
	7,828	10.40	87.2					7,824.8	-17.6	S 4.26	W 17.58	4.52	
	7,860	10.20	87.9					7,856.3	-11.9	S 4.02	W 11.87	0.74	
	7,892	10.10	84.8					7,887.8	-6.2	S 3.66	W 6.24	1.74	**
	7,922	10.00	84.4		<u> </u>			7,917.3	-1.0	S 3.17	W 1.03	0.41	
	7,953	10.10	85.1					7,947.8	4.4	S 2.67	E 4.36	0.51	
	8,015	10.40	85.1					8,008.8	15.3	S 1.73	E 15.35	0.48	
	8,076	10.30	85.4					8,068.9	26.3	S 0.82	E 26.27	0.19	
	8,169	10.50	80.2					8,160.3	42.9	N 1.29	E 42.91	1.03	- L - L - L - L - L - L - L - L - L - L
	8,200	10.10	83.7					8,190.8	48.4	N 2.06	E 48.39	2.40	
	8,264	10.50	89.4					8,253.8	59.8	N 2.74	E 59.80	1.71	
	8,325	10.60	90.3					8,313.8	71.0	N 2.77	E 70.97	0.32	
	8,388	11.20	89.5	<b>†</b>				8,375.6	82.9	N 2.79	E 82.88	0.98	
	8,419	11.30	88.9					8,406.0	88.9	N 2.88	E 88.93	0.50	
***	8,481	10.40	88.7					8,466.9	100.6	N 3.12	E 100.60	1.45	
	8,574	9.40	89.8					8,558.5	116.6	N 3.34	E 116.59	1.09	
	8,668	9.00	91.8					8,651.3	131.6	N 3.13	E 131.61	0.54	
	8,700	8.80	92.5					8,682.9	136.6	N 2.95	E 136.56	0.71	
	8,732	7.60	92.7					8,714.6	141.1	N 2.74	E 141.12	3.75	
	8,762	6.80	95.1					8,744.4	144.9	N 2.49	E 144.87	2.85	
	8,793	6.70	95.6					8,775.2	148.5	N 2.15	E 148.50	0.37	
	8,887	6.10	90.5				•	8,868.6	158.9	N 1.57	E 158.95	0.88	
	8,949	6.00	90.1					8,930.2	165.5	N 1.54	E 165.48	0.18	
7/10/98	9,112	5.25	97.2					9,092.4	181.4	N 0.59	E 181.40	0.63	-
7/11/98	9,312	3.75	105.0					9,291.8	196.8	S 2.25	E 196.80	0.81	
7/11/98	9,504	3.50	117.2					9,483.4	208.1	S 6.56	E 208.08	0.42	
7/12/98	9,694	3.00	121.2					9,673.1	217.5	S 11.78	E 217.49	0.29	
7/12/98	9,877	2.25	135.2					9,855.9	224.1	S 16.81	E 224.11	0.54	
7/13/98	10,066	1.75	146.2					10,044.8	228.3	S 21.84	E 228.33	0.33	
7/13/98	10,266	1.50	161.2					10,244.8	230.9	S 26.86	E 230.88	0.25	
7/14/98	10,439	1.00	158.0					10,417.7	232.2	S 30.40	E 232.17	0.29	
7/16/98	10,696	1.00	158.0					10,674.7	233.9	S 34.56	E 233.85	0.00	
7/17/98	10,881	2.00	165.0					10,859.6	235:3	S 39.18-	E-235.29	0:55	
7/18/98	11,068	2.25	225.0					11,046.5	233.5	S 44.92	E 233.54	1.14	
7/19/98	11,254	1.75	233.0					11,232.4	228.7	S 49.21	E 228.69	0.31	
7/20/98	11,441	1.75	230.0					11,419.3	224.2	S 52.77	E 224.22	0.05	
7/22/98	11,677	2.50	212.0					11,655.1	218.7	S 59.45	E 218.73	0.42	
7/23/98	11,739	2.50	209.0					11,717.1	217.4	S 61.78	E 217.36	0.21	
7/24/98	11,924	1.80	238.0					11,902.0	212.9	S 66.85	E 212.94	0.69	
Projected	11,975	1.80	238.0					11,952.9	211.6	S 67.70	E 211.58	0.00	Projected BHL to TD
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