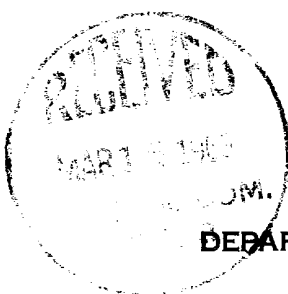


LOCATE WELL CORRECTLY

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER 077764
LEASE OR PERMIT TO PROSPECT _____UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 990, Farmington, New Mexico
Lessor or Tract Schumacher Field Basin Dakota State New Mexico
Well No. 12(OWVO) Sec. 17 T. 30N R. 10W Meridian N.M.P.M. County San Juan
Location 800 ft. N. of 8 Line and 800 ft. E. of W. Line of Section 17 Elevation 6467
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed ORIGINAL SIGNED F.S. OBERLY

Date March 12, 1963 Title Petroleum Engineer

The summary on this page is for the condition of the well at above date. Re-Comp. 2-14-63
Commenced drilling 5-20-, 19 62 Finished drilling 7-5-, 19 62

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 7238 to 7382 (G) No. 4, from _____ to _____
No. 2, from 7382 to 7508 (G) No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
9 5/8"	36	8 rd	J-55	284	WACO				Surface
4 1/2"	11.6, 10.5	8 rd	J-55	7529	Baker				Prod casing
2 3/8"	4.7	8 rd	J-55	7370					Prod tubing

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9 5/8"	301	200	circulated		
4 1/2"	7541	715	3 stage		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
7-9-62	Perf 7297-7303 (2 SPT); 7384-88; 7396-7400 (3 SPT);					Frac w/71,000 gallons water
	80,000# sand. Flush w/5000 gallons water. IR 31.5 BPM. Max pr 4300#, BDP 1350#,					
	tr pr 3400-3200-3000#. Dropped 3 sets of 12 balls.					

TOOLS USED

Rotary tools were used from 0 feet to 7541 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

2-14, 19 63 Put to producing _____, 19 _____

The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. Gravity, °Bé. _____

If gas well, cu. ft. per 24 hours 1,436,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 1509 casing A.O.F. 1500 MCF/D

EMPLOYEES

_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1572	1572	
1572	1660	88	Ojo Alamo
1660	2580	920	Kirtland
2580	2909	329	Fruitland
2909	2990	81	Pictured Cliffs
2990	4540	1550	Levis
4540	4722	182	Cliff House
4722	5164	442	Mensfee form.
5164	5426	262	Point Lookout
5426	6443	1017	Mancos
6443	7178	735	Gallup
7178	7238	60	Greenhorn
7238	7382	144	Graneros
7382	7508	126	Dakota
7508	7541	33	Morrison

2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841.

HISTORY OF OIL OR GAS WELL

16-43094-2 U. S. GOVERNMENT PRINTING OFFICE

FORMATION RECORD—Continued

WELL COMPLETION LOG

Schumacher #12

(Show details of tubular goods, bottom hole accessories, DST's, Cores, Deviations, and General Chronological History).

5-20-62 Brannon & Murray spud well.
 5-21-62 Ran 9 jts 9 5/8" 36# J-55 casing (284') set @ 301' w/200 sacks regular, 1/4 cu ft. Strata-Crete "6"/sk.
 5-22-62 Drilling.
 5-30-62 Lost circulation 18 1/2 hours. Lost 72 jts. 4 1/2" drill pipe & 25 collars in hole. D
 5-31-62 K Fishing.
 6-1-62 Fishing.
 6-2-62 Milling on fish, have hold of fish, unable to pull, ran free point by Dia-egg.
 6-3-62 Recovered 72 jts. drill pipe. Left 25 collars w/tool joint on top. EY
CO
 Top of fish @ 4686'.
 6-5-62 Recovered 9 drill collars. 16 still in hole.
 6-7-62 Spotted 250 sacks cement plug from 4350-5050'.
 6-9-62 Cement too soft to whipstock. Spotted 250 gal 7 1/2% MCA & 65 sacks El Toro "35", 2% calcium chloride, 20-40 sand, from 4470-4690'.
 6-12-62 Spotted 100 sacks cement 15# 20-40 sand. 45# Activated charcoal/sk., 2% HA-5 (4400-4720). Bradenhead squeezed to 200 psi for 1 hrs
 6-13-62 Top of cement @ 4515'.
 6-14-62 Cement too soft to whipstock.
 Spotted 75 sks regular cement, 15% 20-40 sand, 3% HA-5 4700-4500'.
 6-17-62 Set Whipstock.
 6-18-62 Drilling.
 6-22-62 Lost circulation 4 hrs.
 7-2-62 Lost 3 cones in hole. Recovered fish.
 7-3-62 Drilling.
 7-5-62 Reached T.D. Ran IES & GG log.
 7-7-62 Ran 236 jts. 4 1/2" casing (32 jts. 11.6#, 197 jts. 10.5#, 7 jts. 11.6#) for a total (7529') set at 7541'. Cmted 1st stage w/80 sacks regular, 4% gel, 1/4# tuffplug/sk., 1/8# flocele/sk., 0.4% HR-4 & 50 sacks regular, 1/4# tuffplug, 0.4% HR-4. 2nd stage w/260 sacks El Toro "35", 4% gel, 1/4 cu. ft. Strata-Crete "6"/sk. 3rd stage w/325 sacks El Toro "35", 6% gel.
 7-9-62 Perf 7297-7303; (2 SPF); 7384-88; 7396-7400 (3 SPF); Frac w/7100 gallons water, 80,000# sand. Flush w/5000 gallons water. I.R. 31.5 BPM. Max pr 4300#, BDP 1350#, tr pr 3400-3200-3000#. 3 drops of 12 balls.
 7-10-62 Blowing well.
 7-12-62 Ran 238 jts. 2 3/8" 4.7#, J-55 tubing (7397') set at 7408'.
 Shut in for test.
 7-19-62 Date well was tested.

WORKOVER

1-16-63 Moved S. S. Reames on location to workover.
 1-17-63 Set Choke @ 7400'. Pulled tubing. Gas blowing around backside of 9 5/8" casing. Tried to run junk basket. Stopped @ 1074'.
 1-18-63 Killed well w/mud. 4 1/2" csg. was parted @ 1074, pulled 1074' of 4 1/2" casing.
 1-19-63 Washed over 4 1/2" csg. to 1098'. Re-ran top part of 4 1/2" csg. & tied together w/Bowen csg. bowl. Set slips w/25,000#. Casing patch @ 1077'.
 1-20-63 Set full bore pkr @ 1805' & tested casing to 2500#. Cemented backside of 4 1/2" casing w/150 sks. regular cement. Came out of hole w/packer.
 1-21-63 Re-ran 237 joints 2 3/8" tubing. 7360' landed @ 7370'. Shut well in for test.
 2-14-63 Date well was tested.