	TED STATES TO F THE INTERIOR N.M. Oil Cons. Ji 1625 N. French D	Budget Bureau No. 1004-0135
	LAND MANAGEMENT Hobbs, NM 3824	Expires: March 31, 1993 5. Lease Designation and Serial No.
•		NM9824
	AND REPORTS ON WELLS	6. If Indian, Allottee or Tribe Name
	ill or to deepen or reentry to a different reservoir R PERMIT—" for such proposals	
SUBMIT	IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas Well Well Other		8. Well Name and No.
2. Name of Operator	·····	Laguna Deep Jt. Fed
Matador Operating Compar	1 y	9. API Well No.
3. Address and Telephone No.	lidland TV 70701 015 697 5055	30-025-25886 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey E	tidland, TX 79701 915-687-5955	Teas Bone Spring
1650 FNL, 1980 FEL Sec. 35, T19S, R33E		11. County or Parish, State
		Lea County, NM
	(s) TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTIO	N
Notice of Intent		Change of Plans
Subsequent Report		New Construction
Subsequent Report	Plugging Back Casing Repair	Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
13. Describe Proposed or Completed Operations (Clearly state a	Altering Casing Other Ot	Dispose Water (Note: Report results of multiple completion on Weil Completion or Recompletion Report and Log form)
 Describe Proposed or Completed Operations (Clearly state give subsurface locations and measured and true vert 	Other	Dispose Water (Note: Report results of multiple completion on Weil Completion or Recompletion Report and Log form)
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 13. Describe Proposed or Completed Operations (Clearly state give subsurface locations and measured and true vert See Attachment See Attachment 	Other	Dispose Water (Note: Report results of multiple completion on Weil Completion or Recompletion Report and Log form)
 13. Describe Proposed or Completed Operations (Clearly state give subsurface locations and measured and true vert See Attachment 14. I hereby certify that the foregoing is Juleand correct 	Diane Kuykendall	Dispose Water (Note: Report results of multiple completion on We'l Completion or Recompletion Report and Log form) Tring any proposed work. If well is directionally drilled,

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Laguna Deep #1 Lea County, NM

- 7-22-98 0 tbg, 0 csg. MIRU Dawson Pulling Unit. Pump 60 bbl FW down tbg. Tbg on vacuum. Load BS w/2 bbls FW. Remove Tree. NU 6" 900 BOP w/2 7/8" Rams. Attempt to release tbg from permanent pkr. Unable to release J latch. RU Wedge WL. RIH w/2 ¼" Jet cutter. Pump 80 bbls FW down tbg. Attempt to cut tbg. Cutter failed. POH. RIH w/redressed cutter. Cut tbg @ 12,910' (14' above pkr). POH w/WL & tools. FL @ 2900'. PU on tbg. Tbg not free. Work tbg up & down w/torq on tbg. Tbg released. Tbg weight @ 84,000 lbs. SWI. SDON.
- 7-23-98 RU Scanalog tbg inspection unit on wellhead. POH inspecting tbg. All tbg severely pitted internally. Lay down all tbg. Rec 429 jts & 1 cut PC of 2 7/8" N-80 tbg & 2-8' pup jts. RD ICO. SWI SDON.
- 7-24-98 0 psi tbg & csg. RU Computalog. RIH w/junk basket w/gauge ring to 12,900'. POH. RIH w/Halliburton EZ Drill. CIBP on Wireline. Set <u>CIBP @ 12,900'</u>, FL @ 9,500'. Load hole w/224 bbl fresh water. Dump bail 40' of cement on top of CIBP from 12,860-12,900'. New PBTD @ 12,860'. LWOTT. SDON.
- 7-25-98 Load csg w/47 bbl FW. (NOTE: air unloaded water from previous day). Test csg & plug to 1000 OK. RU Computalog. Ran CBL across Wolfcamp from 11,600-11,000' w/1200 psi on csg. Bond amplitude indicated poor bond but travel time indicated fast formation. Reran CBL across Wolfcamp w/0 psi. Amplitude changed by approx. 10-20 MV indicated microannulus. Ran CBL across Bone Springs from 10,000 to 7,600'. Very good bond across Bone Springs pay interval from 9100-9570'. Bleed off pressure. POH w/log tool. TOC @ 6500'. RD Computalog. RIH w/4 ¾" bit, csg scraper on new 2 7/8" 6.5# EUE 8rd N-80 tbg to 11,300'. SWI. SDON.

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Laguna Deep #1 Lea County, NM

7-27-98 0 tbg psi 0 csg psi Finish TIH w/bit & scraper plus 355 jts 2 7/8" tbg to 11,319'. Circulate 240 bbls 2% KCL. Spot 500 gals 15% HCL. NEFE w/LST Acid. Displace tbg w/62 bbls 2% KCL. Acid spotted over 575'. TOH w/ 2 7/8" tbg plus scraper & bit. LWOTT & SDON. Tubing Detail:

379 jts 2 7/8" 6.5# 8rd new tbg

- RU Computerlog. Load hole w/25 bbls 2% KCL. RIH w/4" perforating gun. Rerun CBL for correlation. Perforate Wolfcamp from 11,279-84' & 11,291-306' w/4 SPF. RIH w/5 ½ Arrow Set I Packer, seating nipple and 332 jts tbg. Set packer @ 10,481' KB. Pressured tbg/csg annulus to 500#. Pressured tbg in steps to 4000#. Pump truck belt slipped. Well did not leak off. SWI w/3900# on tbg & 600# on csg. SDFN.
- 7-29-98 Tbg pressure 3400#. RU pump truck. Pumped 13 bbls 2% KCL to displace acid as follows:

Rate/Bbl	Bbls Away	Tbg Pressure	Csg Pressure
.5	1	4410	600
.5	3	4500	600
.5	6	4550	6 00
.5	9	4620	600
.5	12	4690	600

ISIP 4600, 5m-4550, 10m-4500, 15m-4460. Bled off tbg. Well flowed back very small amount for 20 min. Swabbed well as follows: IFL@ surface. Made 8 runs, recovered 77.2 bbls. EFL @ SN @ 10,481" Last run trace of acid. (Note: Tbg capacity 60.7 bbls, packer to perfs 18.3 bbls for a total of 79.0 bbls) SD for 1 hr. RIH & tagged fluid @ 10,281. Pulled from SN & recovered .75 bbls. LWOTT & SDON.

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Laguna Deep #1 Lea County, NM

7-29-98 Cont.

Tbg in hole	332 jts
Tbg in Derrick	<u>22</u> jts
-	354
Tbg on Rack	<u>25 jts</u>
Total jts	379 jts on location

Note: 20 jts on south end of rack have never been in hole.

- 7-30-98 Tbg pressure 0# Csg pressure 0# RIH w/swab tag FL @ 10,000'. Recover 1 BW. Load tbg w/2% KCL water. Release pkr RIH w/11 stands in derrick. POOH lay down 53 jts. 301 jts in. Spot 500 gal 7 ½% (7 ½% Ferchek SC 3 gal/1000 Iron Control FE5A .5#/1000 gal – H11-124C-.2 gal/1000 HAI-81m, 2 gal/1000 low surf 300 1 gal/1000 Pen 88) acid @ 9503'. RD & release Halliburton. POOH w/2 7/8" tbg & pkr. RU Computalog. RIH w/5 ½ 10k CIBP Set @ 11,200'. FL @ 900' RIH w/Dump Bailer. Dump 35' cmt on CIBP @ 11,200'. POOH. RIH w/5 ½ 10k CIBP set @ 9620' POOH SWI SDON.
- 7-31-98 RU Computalog. Run Gamma Ray /9600-9000' to tie in Bone Springs. Perf well as follows:

Fluid Level	Perf	
1 st 900'	9221-30	No action
2 nd 900'	9231-45	No action
3 rd 900'	9319-27	No action
	9352-58	No action
4 th 900'	9423-31	No action
	9437-41	No action

Ran 4" guns w/4 SPF. RD Wireline. RIH w/5 1/2" TS bridge plug, 5 1/2 CS1 Parker SN, 251 jts. Set plug.

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Laguna Deep #1 Lea County, NM

- POH w/tbg, pkr & pllug. RU Halliburton-perforate f/9454-59. RIH 08-01-98 w/tools & tbg, set RBP @ 8994'. Displace tbg w/2% KCL w/2 gas/1000 ProTex-All 1 gas/1000. LS-300. RIH w/plug, pkr & tbg. Set RBP @ 9280'. Set pkr @9274'. Test plug to 6175 psi OK. Set pkr 9147' pressure tbg csg anulus to 500#. Break down perfs 9221-9245; Max pressure 2257 w/l bbl to 1980 @ .5 BPM. Increased rate to 3.3 BPM @ 2500# w/5 bbls away. Spot 1200 gals W w/961.35 G ball sealers. Treat zone @ 3.5 BPM, map pressure 2747 min pressure 2257. Avg pressure 2600. Flowed back 7 mins to .5 BPM. Moved tools w/RBP @ 9398' pull pkr to 9274'. Break down perf 9319-27 & 9352-58'. Break down pressure 3483 est rate 2 BPM @ 3150'. Spot 5 bbls in 700 gals. Treated water. Treat as follows: max pressure 4607, min pressure 3150, avg pressure 3900 @ 2.5 BPM. ISIP 3443, 5 min 2951, 10 min 2553, 15 min 2519. Good ball action. Flowed back 5 min. Moved tools. Set RBP @ 9554'. Move pkr to 9397'. Break down perfs 9423-59; broke down @ 2473, est inj rate @ 3.0 BPM @ 2809#. Spot 68 balls in 850 gals treated water. Treat as follows: Max pressure 3310, min pressure 2473, avg pressure 3000 @ 3 BPM. ISIP 2700 5 min 2675, 10 min 2643, 15 min 2628. Good ball action. Bled tbg & csg. Moved pkr to 9147'. Start swabbing. Made 14 runs. IFL surface EFL @ 9147. Made 14 runs recovered 90 of 136 BLW. Last run 5% oil w/gas after run. SWI. (NOTE: 46 BLW left to rec (BLLTR)).
- 8-2-98 Tbg pressure 100#. Swabbing. IFL 7500'. Made 12 runs, recovered 26 bbls in 8 hrs. EFL 9147 SN. Last 4 runs 1 per hr w/200'. Entry @ 5-10% oil cut. 20 BLLTR. LWOTT.
- 8-3-98 Swabbing. IFL 8600'. Swabbed 8 hrs made 8 runs recovered 16 bbls. EFL 9147 SN. Last oil cuts were 30% w/100-150' of fluid entry. LWOTT.



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Laguna Deep #1 Lea County, NM

- 8-4-98 Swabbing. IFL 8600' Made 9 swab runs in 8 hrs. Recovered 15 bbls.
 EFL 9147 SN. Last cut was 20-25% oil w/100-150' of fluid entry after 1 hr sd. Recovery in tank 10 BO & 129 BW. Sent water & oil samples to Halliburton.
- 8-5-98 Swabbing. Tbg pressure 60#. IFL @ 8600'. Made 12 runs in 9 hrs. Recovered 15 bbls. EFL @ SN 9147. Last 2 runs 100' entry w/10% oil cut. Halliburton water samples results for swabbing on 8-4-98 follow:

Sample	<u>A.M.</u>	<u>P.M.</u>
Sample Temp	70F	70F
Resistivity	0.069	0.065
Specific Gr	1.095	1.100
PH	6.57	6.62
Calcium	2.250 mpl	2.350 mpl
Magnesium	990 mpl	570 mpl
Chloride	80,250 mpl	85,750 mpl
Sulfates	3,630 mpl	4,010 mpl
Bicarbonates	350 mpl	415 mpl
Soluble iron	Heavy	Heavy

Oil gravity 36.1 @ 60F

8-6-98 50 psi TP. BFL @ 8700'. Swab 15 BF in 9 runs & 8 hrs last 2 hrs rec .6 BF each hr w/10-15% oil cut. Total rec 14 BO + 159 BW.

Water analysis for water recovered 8/6/98:

Sample Temp	83F
Resistivity	0.063
Specific GR	1.105
PH	6.83
Calcium	1,100 mpl



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Laguna Deep #1 Lea County, NM

Magnesium	600 mpl
Chloride	89,250 mpl
Sulfates	4,220 mpl
Bicarbonates	260 mpl
Soluble iron	small mpl

8-7-98 Day 17. Loaded tbg w/53 bbls 2% KCL. Released pkr & reset @ 93917' KB. Loaded annulus w/2 bbls & pressured to 200#. Swabbed load water plus 9 bbls produced water w/a 10% oil weight. EFL @ 9397'. SN SWI.

70F
0.063
1.110
7.12
600 mpl
360 mpl
90,000 mpl
4,540 mpl
1,070 mpl
Mod mpl

- 8-8-98 Day 18. 50 spi TP. IFL 9100'. Swabbed 7 hrs recovered 9 bbls. EFL 9397' SN. Cutting 10% oil w/50' of recovery on last two runs. Sent water sample to Halliburton. LWOTT.
- 8-10-98 Day 19. Swabbing. IFL 8700' swabbed 9 hrs made 10 runs recovered 15 bbls w/EFL @ 9397' SN. First run 40% oil w/gas, 2nd run 9150' w/15% oil & gas. 3rd run dry & tbg on vacuum after run. Balance swabbing each run had 50' of fluid w/5% oil cut. LWOTT.



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Laguna Deep #1 Lea County, NM

8-11-98	Well SI. Awai	iting Frac schedule. Frac date	scheduled for 8/14/98.
8-12-98	tbg w/58 bbls 2 pkr to 9147'. 3 plug. Reverse	open to tank. IFL 8500' made 2% KCL. Released pkr. Pkr v Set pkr pressured csg to 3500 d 2% down annulus to wash o eceived 5 frac tanks & started	psi OK. TIH to pull bridge ver plug. Engaged & pulled
8-13-98	Day 19. Csg on a vacuum. RU Computalog. RIH w/5 ½ Halliburton EZ CIBP & set @ 9410' KB. RD Wireline. FL @ 1000'. Finished filling frac tanks w/fresh water. Halliburton mixed 2% KCL in all tanks.		
8-14-98			
8-15-98			
8-16-98	Day 20. MIRU Halliburton Frac equip. ND BOP. Install Frac valve on 7 1/16" 5000 tbg head. Frac Bone Springs perfs 9221-9245', 9319-9327', 9352-9358' w/68,000 gals Delta Frac 200" (25# xlmked gel) carrying 199,000# of 16/30 white sand treated w/sand wedge. Treated down 5 1/2" csg @ 30 BPM. Pumped schedule as follows:		
	Stage	Fluid	Sand
	Pad	18,000 gal Delta Frac 200	
	1 st Sand	10,000 gal Delta Frac 200	216 gal 16/30 w/sand wedge
	2 nd Sand	10,000 gal Delta Frac 200	316 gal 16/30 w/sand wedge
	3 rd Sand	10,000 gal Delta Frac 200	416 gal 16/30 w/sand wedge
	4 th Sand	10,000 gal Delta Frac 200	516 gal 16/30 w/no sd wedge
	5 th Sand	10,000 gal Delta Frac 200	5-816 gal 16/30 w/sd wedge
	Flush	8,700 gals Treated KCL	
		cluding 2% KCL ahead of Fra	c) @ 2,040 bbls
		e (end of pad) @ 3,260 psi	
	Final Pressure	e (end of flush) @ 3,410 psi	



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Laguna Deep #1 Lea County, NM

Had positive net pressure most of job. PSDP @ 2834 psi. Open well to pit for forced closure. Began flowback @ 1 ½ BPM. Flow well for 50 min (75 bbls). SWI. ISIP @ 2140 psi. Monitor well for 15 min. 15 min SIP @ 2203 psi. RD Halliburton. OWTP on 6/64 ck. Flowing @ 10 BWPH. Flow 40 BW in 4 hrs. Switch well to tank. Csg pressure @ 4:30 p.m. 8/14/98 @ 1825 psi. Flow well as follows:

Time	Pressure	Recovery	Cut
4:30p.m7:00 a.m.		110 bbl	100% water
7:00a.m8/15/98	1300		
7:00a.m3:00 p.m.	550	74 bbl	100% water
3:00p.m9:00 p.m.	220	73 bbl	100% water
9:00p.m8:00 a.m.			
8/16/98	0	34 bbl	100% water
8:00a.m1:00 p.m.	0	8 bbl	100% water

Total Recovery 414 BW of 2040. 1626 BLWLTR as of 1:00 p.m. 8/16/98.

- 8-17-98 Removed 6" 1500 treating flange. Install BOP. RIH w/hydrostatic bailer. Tagged sand at 8570' KB. Bailer would not bail. POH w/tbg & tools. Found caliche rocks in check valve. RIH w/bailer & cleaned out to 8750'. Bailer quit working. POH w/30 stands. SWI SDON.
- 8-18-98 POH w/bailer. Recovered 600' of frac sand in the tbg. RIH w/notched collar, tbg & tagged sand @ 8730'. RU reverse unit & cleaned sand from 8730' to 9410'. Pumped @ 3 BPM @ 300-500# & lost approximately 22 bbls of 2% KCL. Circulated hole clean. Laid down 21 jts & pulled 24 in derrick. BOT @ 8000'. SWI SDON.

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Laguna Deep #1 Lea County, NM

- 8-19-98 Day 23. RIH & tagged PBTD @ 9410. POH w/tbg. RIH w/5 ½ arrow set pkr, SN, & 289 jts tbg. Set pkr @ 9147 ± KB. Started swabbing IFL 50', made 20 runs, recovered 211 bbls w/a 2% oil cut. EFL @ 2100' & holding. RD reverse unit. SWI SDON. TLWTR 2040 Recovered 625 TLWLTR 1415
- 8-20-98 Tbg w/150 psi. Blew tbg down in 15 min. IFL 1500' made 21 runs @ 1-2% oil cut @ 306 PH w/FL @ 3000'. Run 22-25 oil cut @ 60% w/FL @ 3000'. Runs 26-29 oil cut @ 60% w/FL @ 3000' & pulling 15 bbls PH. Tbg blowing on all runs 23-29. Recovered 240 bbls-296 bbls for oil cut = 211 BW. Left well open to tank. After 2 hrs well bled down. SI for 1 hr & pressure built to 6#. LTR 2040 Recovered 836 TLWLTR 1204.
- 8-21-98 Day 25. Well open to tanks. IFL 2500' 1st run w/20% oil. Swabbed 6 hrs, recovered 78 bbls w/30% oil cut. EFL @ 3800'. Pulling 15 bbls/hr SD 1 ½ hrs to service rig. Began swabbing @ 2:00 p.m.

	IFL	Pulled from	% Cut	t Tbg Status
1	3500	4000	30	Blow
2	3800	4800	30	Blow
3	4000	5000	30	Blow
4	4000	5000	30	Blow
5	4200	5200	30	Blow
6	4500	5500	30	Blow-started making sand
7	4600	5600	30	Blow-sand on cups
8	4800	5800	30	Blow-sand on cups
9	5000	6000	31	Blow-sand on cups
10	5100	6100	30	Blow-sand on cups
11	5100	6100	30	Blow-sand on cups
EFL (D 5100'	, recovered 12	3 bbls.	Swab rate @ 15 bbls/hr. SD LWOTT
				R 1118. Perfs 9221-45, 9319-27,
9352-	58 CIB	P@9410'. Pl	kr @9	147 w/289 jts. TJOL 309 jts.

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Laguna Deep #1 Lea County, NM

8-22-98	Day 26. BFL @ 4500'. Swab 28 BF in 5 runs and 2 hrs. 1 st run rec 50% oil. Next 4 runs recovered 30% oil. Making trace of sand on all runs. SDOW. LWOTT. 942 Bbls rec. of 2040 BTL. 1098 BTLLTR.
8-24-98	Day 27. Well open overnight on 10/64 ck. No fluid recovered. RU swab. FL @ 3000' fs. Made 1 run. Recovered 5 bbls w/60% oil cut. RD swab. Unset pkr & let equalize. POOH w/pkr RIH w/2 7/8 notched collar on tbg. Tagged up 9390' (297 jts). POOH. RIH w/5 ½ CS-1 pkr, SN & 289 jts tbg. Set pkr w/12 pts compression @ 9144'. RU swab. IFL-2000'. Made 3 runs. FFL-2500'. Recovered 14 bbls. Had 50% oil cut on 1 st run w/trace on next 2 runs. Leave well on 10/64 ck to tank.
8-25-98	Day 28. No fluid recovered over night. TP-0 CP-0. RU Swab. IFL 2500'. Had 1% oil cut. After 9 runs FL @ 4800'. Oil cut increased to 45%. On run #20 FL @ 6000'. Oil cut dropped to 30%, gas increased & started seeing sand. Continue swabbing. Made total of 30 runs. Still recovering sand. FEL 6600'. Recovered 156 bbls. Averaged 30% oil cut. Leave on 10/64 ck to tank.
8-26-08	Day 29 No fluid recovered overnight RU swab. IFL 4100' had 20% oil

8-26-98 Day 29. No fluid recovered overnight. RU swab. IFL 4100' had 20% oil cut on 1st run. On run #5 had show of sand. FL @ 4800' w/10%. On run #7 had gas increase. FL @ 4800' w/10% cut. On run #10 had 20% oil cut. On run #13, 25% cut w/FL @ 5800'. On run #15 had 40% oil cut. FL @ 6100'. Had total of 23 runs. FFL @ 7900'. Still 40% cut. Recovered 119 bbls. Leave on 10/64 ck. SDFN.

Halliburton water sample analysis:

Sample Temp.	70F
Resistivity	0.077
Specific Gr.	1.080
PH	7.42
Calcium	700 mpl

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Laguna Deep #1 Lea County, NM

Magnesium	120 mpl
Chloride	73,000 mpl
Sulfates	2,720 mpl
Bicarbonates	2,810 mpl
Soluble Iron	0

8-27-98 Day 30. No fluid recovered overnight. TP-slight blow. RU swab. IFL-7500'. Had 50% oil cut. Run #6 had show of sand w/FL @ 7700'. Run #7 had more gas. On runs #14, 15 & 16 FL @ 8100' w/sand increasing. Very little fluid recovered due to sand cutting cups. Leave well on 10/64 ck. Recovered 74 bbls w/FFL @ 8100'. Had 40% oil cut on all runs after #1. Gas decreasing after run #12. SDFN. 1257 BLR of 2040 BTL. 783 BLLTR

Halliburton water sample analysis:

	8-26-98	8-27-98
Sample Temp.		86F
Resistivity	.0759	0.072
Specific Gr.	1.095	1.090
PH	7.35	7.31
Calcium	750	500
Magnesium	900	150
Chloride	87,500	73,750
Sulfates	2500	2,850
Bicarbonates	28 16	2,790
Soluble iron	20	0

8-28-98 Day 31. No fluid recovered overnight. RU swab. IFL 7800'. 50% cut w/fair gas. Run #4 FL @ 7800' w/30% oil cut & sand. Run #6 FL @ 7800'. No fluid recovered due to sand. SDF 1 hr. Run #7 FL @ 7800' w/30% cut. Run #13 FL @ 8000' w/20% cut w/sand. SDF 1 hr. Run #16 FL @ 8500' w/20% cut w/sand. Total of 16 runs. FFL @ 8800' w/20% oil cut. Recovered 49 bbls. Leave on 10/64 ck. SDFN.



Laguna Deep #1 Lea Co, NM

70F
0.069
1.095
7.46
410 mpl
120 mpl
79,250 mpl
3.030
3,123 mpl
0 mpl

8-29-98 Day 32. No fluid recovered overnight. IFL 7900' w/60% oil cut w/good gas. After run #4, SD 1 hr because of sand. FL @ 7900' w/20% oil cut. After run #7 SD 1 hr because of sand. FL @ 8200' w/20% oil cut. After run #10 SD 1 hr because of sand. FL @ 8300' w/40% oil cut. Made total of 12 runs, FFL @ 8500' w/40% oil cut. Made total of 49 bbls w/fair gas at the end of the day. Leave on 10/64 ck. SDFN & SDF Sunday.

Halliburton water sample analysis: Sample Temp 95F Resistivity 0.071 Specific Gravity 1.095 PH 7.34 Calcium 390 mpl Magnesium 110 mpl Chloride 79,000 mpl Sulfates 2,860 mpl Bicarbonates 2,910 mpl Soluble iron 0 mpl



Laguna Deep #1 Lea Co, NM

- 8-31-98 Day 33. No fluid recovered over weekend. RU swab. IFL 6900' fs w/70% oil cut. Made 8 runs. FL @ 7300' w/20% cut. Unseat pkr & lower tbg one jt. OK. Pull pkr back to 9140'. Make 6 more swab runs. FFL @ 7400'. Recovered 75 bbls. Unset pkr & POOH. Load csg w/175 bbls 2% KCL. SWI & SDFN.
- 9-1-98 Day 34. RU Computalog. RIH w/perf guns, GR, CCL. Logging perf zones & tool shorted out. While POH tool pulled out of rope socket. RIH w/2" guide & 1" fishing neck overshot. Unable to fish. RD WL. RIH w/4 11/16 overshot w/3 1/8" graple. Engaged fish & worked weight up to 25,000# pulled. Let fish hang w/weight pulled. In 4 mins tools pulled free. POH & recovered all tools.
- 9-2-98 Day 35. RU Computalog. Ran Gamma Ray from 9100-8450'. Perforated well as follows w/4" guns & 4 SPF:

8860-64	4'	16 holes	4300' FL	
8870-84	12'	48 holes	4300' FL	
8924-34	10'	40 holes	4300' FL	Blow
8910-20'	10'	40 holes	4300' FL	Sucking

Tools stuck @ 8886-worked tools for 45 min. TOOW pulled free. Found 3 caps missing & drag marks.

8888-8902	14'	54	4300'
8671-76	5	20	
8649.5-55.5	5	20	
8661.5-8666.	5 5	20	
8638-42	<u>40</u>	<u>16</u>	
Total	70'	280 holes	



Laguna Deep #1 Lea Co, NM

RD Wireline. RIH w/5 ½ TS RBP, w/400 ball catcher, 5 ½ Arrow set II Packer & 271 jts. SWI. SDON. Note: Perfs f/top down: 8632-42, 8649.5-55.5, 8661.5-8666.5, 8671-76, 8860-64, 8870-84, 8888-8902, 8910-20, 8924-34.

- 9-3-98 Day 36. RIH w/tbg, set RBP @ 8970'. Set pkr @ 8955'. Loaded tbg w/26 bbls KCL. Pressured tbg to 150# & pkr leaker. Moved plug to 9001', set pkr @ 8990'. Loaded w/ 16 bbls & tools would not test. POH w/tools. PU new plug & pkr. RIH w/pkr hanging in csg collar. POH SWI SDON.
- 0 Day 37. RIH w/ 5 1/2 TS-1 RBP, 5 1/2 Arrow Set II Pkr, 284 jts 2 7/8 tbg. 9-4-98 Set RBP @ 9001, set pkr @ 8995. Loaded tbg w/19 bbls 2% KCL w/1 gal/m 19N Non-Emulsifier, 1 gal/m FR-26 LC Friction reducer. FL @ 3300' from surface. Tested RBP & pkr to 5040 psi OK. Released pkr & set @ 8735' w/276 jts. Loaded tbg w/13.5 bbls. FL @ 2343. Broke down perfs 8860-8934 @ 4310 psi @ 1.78 BPM. Opened by-pass & spotted acid to pkr. Closed by-pass & treat perfs w/5000 gal 15% Ferchek SC Acid & 125 7/8" 1.3 SG ball sealers. Treated @ avg press 4200/min, press 3900, max press 4550 @ 5 BPM. Pad 10 bbls, acid 119 bbls, Flush 59 bbls TLTR 188 bbls. ISIP 3900, 5 min 3638, 10 min 3550, 15 min 3490. Slight ball action during treatment. Flowed tbg down to tank in 3 mins. Moved tools. Set RBP @ 8735', set pkr @ 8730'. Tested RBP to 5000# OK. Set pkr @ 8530 KB. Broke down perfs 8632-8676 @ 3044 w/1.4 BPM. Treated perfs w/3000 gals 15% Ferchek SL Acid, w/50 7/8" x 1.3 5.6. Ball Sealers. Treated @ avg 4000 psi, max 4770, min 3400# w/avg rate 4.8 BPM. ISIP 4000, 5 min 3698, 10 min 3575, 15 min 3472. Flowed well down to tank in 6 mins. TLTR 119 bbls. Total job 307 bbls to recover. RD Halliburton reset RBP @ 9001 & pkr @ 8530. RU swab. IFL 300'. Made 16 runs recovered 50 BW. Last 3 runs pulled from SN. LWOTT SDON.
- 9-5-98 Day 38. No flow overnight. RIH w/swab. BFL @ 8000'. Rec 100% wtr. Went 1 hr, made 2nd run w/no entry.



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9-8-98	Day 39. Tagged fluid @ 8000'. Released pkr, 1 POH. RIH w/BHA for pumping well. Remove 18,000#. MU 6" 900 Slip type tbg hanger on 6" line. IFL 2700'. Made 7 runs in 2 hrs, recovered LWOTT SDON.	BOP, set TAC w/31" or 1500 wellhead. RU swab
	Tubing detail:	
	1 – 2 7/8 EUE 8rd N-80 BPMJ 1 – 2 7/8 EUE 8rd J-55 Perf sub 1 – 2 7/8 x 2 3/8 8rd Swedge 1 – 2 3/8 x 1 25/32 SN 1 – 2 3/8 x 2 7/8 8rd Swedge 14 jts 2 7/8 EUE 8rd N-80 1 – 5 ½ x 2 7/8 Mod B TAC w/35,000 shear 271 jts 2 7/8 EUE 8rd N-80	31.00 4.11 @ 9024.11 .74 1.10 @ 9022.27 .74 443.49 2.68 @ 8575.36 <u>8558.78</u> 9042.64
	KB Correction Anchor Setting EOT	14.00 <u>2.58</u> 9059.22

Perforations to date: 8632-42, 8649.5-55.5, 8661.5-8666.5, 8671-76, 8860-64, 8870-84, 8888-8902, 8910-20, 8924-34, 9221-45, 9319-27, 9352-58. CIBP @ 9410.

9-9-98 Day 40. No fluid recovered over night. RU swab. IFL 2900'. Made 22 swab runs. Recovered 142 bbls. FFL @ 4700'. On last 6 runs, had 5% oil cut. SWI & SDFN.



Laguna Deep #1 Lea Co, NM

9-10-98 Day 41. Vacuum truck emptied cellar. Backhoe filled in cellar. Vacuum truck hauled 230 BW from frac tank. RIH w/pump & rods. Spaced pump 15" off bottom. Loaded tbg w/25 BW. Pressured tbg to 500#. Stroked pump to 500# OK. Removed 2" 5000# gate valve on csg. Installed ball valve.

Rod Detail:

1" x 16' Gas Anchor 1-2" x 1 $\frac{1}{4}$ x 20' RHBC 6' S.M plunger w/equalizer valve Brass Chrome bbl Double SVT/C, single training TC 152" max stroke 1 $\frac{1}{2}$ " fishing neck 359-3/4" x 25' Trico T-66 w/FHT cplgs. 1 - $\frac{3}{4}$ " x 4' Trico T-66 sub 1 - 1 $\frac{1}{4}$ x 26' Polish rod w/1 $\frac{1}{2}$ x 12' liner

- 9-15-98 Day 1. Roustabout crew set 4x20 heater treater. Crew sandblasted treater. Crew took firetube & water leg to shop for repair. Crew disconnected stack pack. Moved 4x20 heater from Harrison #9.
- 9-16-98 Day 2. Welder repairing 4x20 treater. WTG set Lufkin 320 Mark unit. Nolan Brunson loaded 2 MM stack pack & hauled to Sivalls for shop repair.
- 9-17-98 Day 3. Welder finished welding on heater treater. Crew sandblasted & coated treater.
- 9-18-98 Day 4. Roustabout crew started plumbing treater. WTG set Ajax engine on pumping unit.
- 9-19-98 Day 5. Contractor removed defective flake line coating. Contractor coated treater w/flake line.
- 9-20-98 Day 6. Mikog installed muffler & gas volume pot on Ajax engine.



Laguna Deep #1 Lea Co, NM

9-21-98	Roustabout crew plumbing lines on heater treater. Installed firetube. Cumulative Cost is adjusted on this report.
9-23-98	Roustabout crew pressured up on heater treater. Mikog started the A-Jax gas engine. FL @ start up was 1736' from surface. Crew replaced connections in water tank. Crew is plumbing heater treater. Unit is running 6.78 SPM.
9-24-98	75 BW 200# TP. Vacuum truck emptied water tank. Roustabout crew changed out leaking 2" and 3" connections on fiberglass tank.
9-23-98	Roustabout crew pressured up on heater treater. Mikog started the A-Jax gas engine. FL @ start-up was 1736' from surface. Crew replaced connections in the water tank. Crew is plumbing the heater treater. Unit is running 6.78 SPM.
9-25-98	Roustabout crew built a new load line for the water tank.
9-28-98	FL 5333' from surface.
9-29-98	25 BO 57 MCF 48 BW
10-1-98	Shot fluid level @ 8860'. MIKOG installed drum over muffler on A-Jax engine.
10-5-98	Contractor replaced clutch on A-Jax engine.
10-6-98	Leamco repaired belt guard & gear box leaks. Contractor balanced pumping unit. Mikog installed fly wheel safety guard. Started unit running @ 3:30.
10- 7-98	Roustabout crew finished plumbing treater burner assembly. Crew dressed location.
10- 8-98	30 BO 46 MCF 56 BW

