

## District I

1625 N French Dr, Hobbs, NM 88240

## District II

1301 W Grand Avenue, Artesia, NM 88210

## District III

1000 Rio Brazos Road, Aztec, NM 87410

## District IV

1220 S St Francis Dr, Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-101

June 16, 2008

## Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Submit to appropriate District Office

SEP 24 2008

☐ AMENDED REPORT

OCD-ARTESIA

## APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Devon Energy Production Company L.P. 20 North Broadway OKC, OK 73102-8260		OGRID Number 6137
Property Name Pure Grace State		API Number 30-015-24119
Property Code 37414	Well No 1	
Proposed Pool 1 Wolfcamp	Proposed Pool 2 Upper Penn Shale	

## Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	34	23S	27E		1980	South	1980	East	Eddy

## Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	34	23S	27E		1980	South	1980	East	Eddy

## Additional Well Information

Work Type Code Recomplete	Well Type Code Gas	Cable/Rotary R	Lease Type Code State	Ground Level Elevation 3171' GL
Multiple N	Proposed Depth 12,703	Formation Morrow	Contractor	Spud Date 04/19/1982
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner Synthetic <input type="checkbox"/> mils thick Clay <input type="checkbox"/> Pit Volume bbls Drilling Method Closed-Loop System <input checked="" type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

## Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
20"	16"	65# L-55 ST&C	496'	600 sx CLC	Surface
14 3/4"	10 3/4"	40.5# K-55 L T&C	2280'	2100 sx CLC	Surface
9 1/2"	7 5/8"	7#/#39# S95 L T&C	9344'	2000 sx CLH	Surface
6 1/2"	4 1/2"	13.5# S95 L T&C	12702'	550 sx CLH	TOL @ 8834'

22 Describe the proposed program If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any Use additional sheets if necessary

Devon proposes to re-enter PA'd well and drill out CIBP's to test the Wolfcamp & Upper Penn Shale. See attached procedures:

- Depth to groundwater is 50' or more, but less than 100', distance to surface water is approximately 1000' or more, well is not in the wellhead protection area
- No earthen pit to be constructed, closed loop system to be utilized, see attached Form C-144 CLEZ
- No H2S is expected to be encountered, H2S plan provided 5000 psi Double and HydriL with drilling spool & rotating head to be used
- Completion papers to be filed if a successful test, or subsequent report of work if no economic reserves
- If it is deemed non-commercial then it will be plugged and abandoned in accordance with the rules and regulations established by the New Mexico OCD

Note: If well is productive in both zones: will produce the Wolfcamp up the backsides and Upper Penn Shale up the tubing.

Current Form C-144 must be approved prior to commencement of drilling activities

and complete to the the drilling pit will be general permit ☐, or

Printed name Stephanie A Ysasaga  
Title Sr Staff Engineering Technician  
E-mail Address Stephanie.Ysasaga@dev.com  
Date 09/23/2008 Phone (405)-552-7802

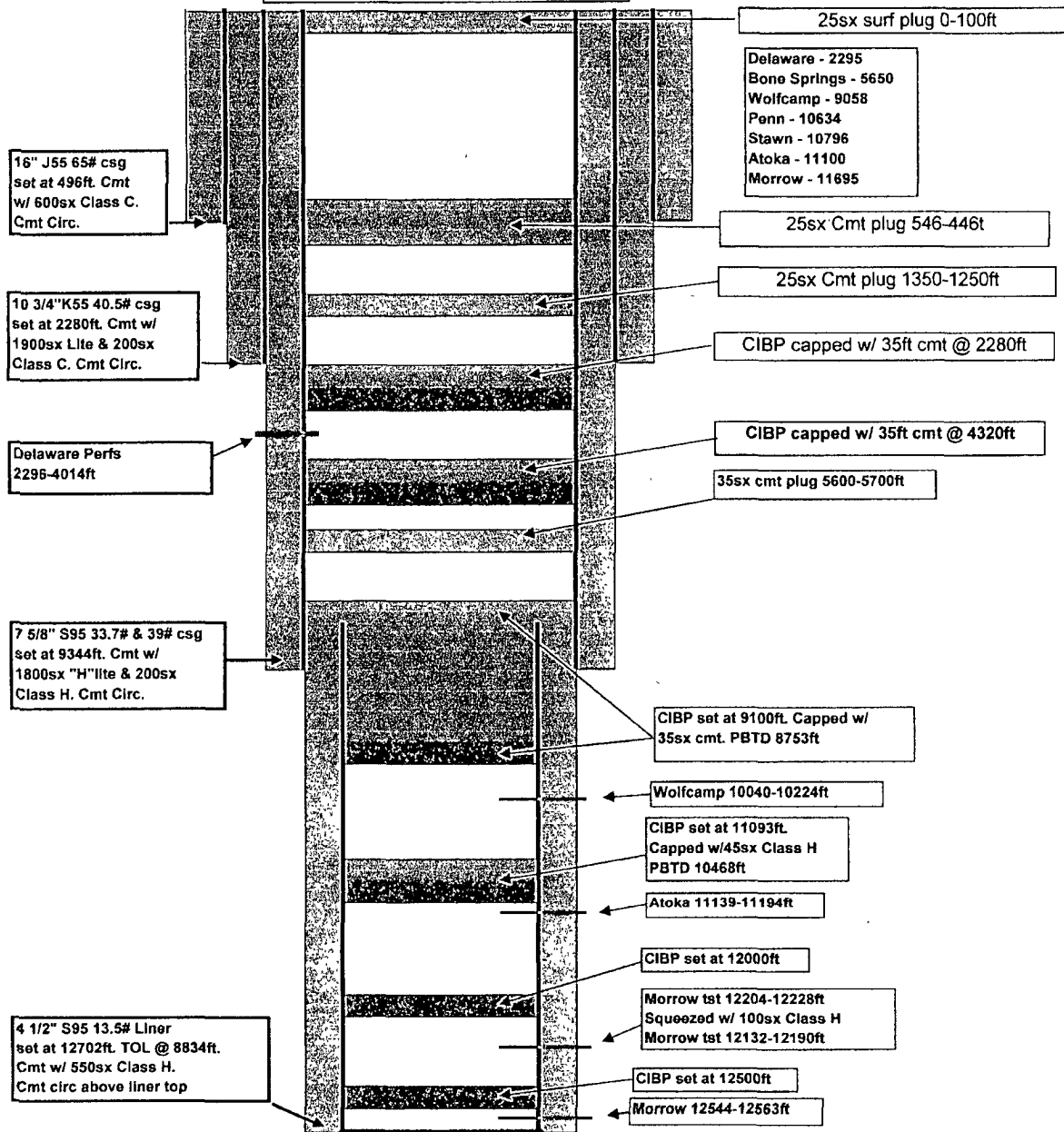
OIL CONSERVATION DIVISION	
Approved by <i>Don W. Drum</i>	
Title <i>District II Supervisor</i>	
Approval Date <i>10/9/08</i>	Expiration Date <i>10/9/10</i>
Conditions of Approval Attached <input type="checkbox"/>	



Spud 4/19/1982  
PA 4/8/1983  
Re-enter 12/20/2006

After PA

Judah Oil Company  
Pure Grace State # 1  
API # 30-015-24119  
UL "J", Sec 34, T23S, R27E  
Eddy County, New Mexico



**Devon Energy Corporation DRAFT**  
**Pure Grace State 1**  
**1980' FSL & 1980' FEL - SEC 34 – T23S – R27E**  
**Eddy County, NM**  
 AFE #145302 API # 30-015-24119 WI=100%

**Objective:** Re-entry PA'd well to the test the Wolfcamp and Upper Penn Shale (UPS).

**Well Data:**

Surface Casing: 16" 65# J-55 STC @ 496' (TOC surface)  
 Intermed Casing: 10-3/4" 40.5# K-55 LTC @ 2280' (TOC surface)  
 Production Casing: 7" 5/8" 33.7#/39# S95 LTC @ 9,344' (TOC surface)  
 Liner: 4 1/2" 13.5# S95 LTC f/ 8834'-12702' (TOC 8834')  
 KB elev: 31xx' Drilled: 1982 GL elev: 3171'  
 PBTD: See wellbore diagram  
 Existing Perfs: 2296'-06', 2350'-87', 2394'-00', 2460'-71', 2496'-02', 2516'-26', 2542'-66', 2620'-44', 2650'-62', 2674'-96', 4009'-14' (Delaware)  
 10,040'-50', 10,205'-13', 10,219'-24', (Wolfcamp)  
 Proposed Perfs: 10,744'-54' and 10,764'-74' UPS

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**Procedure:**

1. Before rig arrives, set and pull test anchors. Dig out wellhead. Remove marker and weld on 7 5/8" casing head. Dress location.
2. RUPU. NU BOP.
3. PU 6 1/4" bit and drill collars on 2 7/8" tubing. RU reverse unit, power swivel, and stripping head. Drill out surface cement plug to 100'. RIH to next plug at 446' and drill out cement to 546'. RIH to next plug at 1250' and drill out cement to 1350'. RIH to CIBP at 2280' (w/35' cmt). Drill out. RIH to CIBP at 4320' (w/ 35' cmt). CHC. POOH.
4. RIH with 7 5/8" packer and set 100' above perfs from 4009-14'. Establish injection. Mix and pump 100 sxs cement as per BJ Services recommendation. Release packer. PUH 10 stands, reverse 2 tubing volumes, and reset packer. Pressure up to ~1000 psig and SI overnight.
5. Release packer. POOH. RIH w/ tailpipe and packer and spot cement across perfs from 2296'-2696'. Set packer and squeeze. Release packer. PUH 10 stands, reverse 2 tubing volumes, and re-set packer. Pressure up to ~ 1000 psig and SI overnight.

6. Pressure test squeeze to 1000 psig. Release packer. POOH.
7. Pickup 6 1/4" bit and drill collars on 2 7/8" tubing. RU reverse unit, power swivel, and stripping head. RIH and drill out cement to 2700'. Pressure test casing to 1000 psig. RIH to next TOC and drill out 4020'. Pressure test casing to 1000 psig. RIH to CIBP at 4320' (w/ 35' cmt) and drill out. RIH to TOC at 8753'. Drill out cement to TOL at 8834'. CHC. Pressure test casing to 1000 psig. POOH.
8. RIH w/ 3 3/4" bit and drill collars on 2100' - 2 3/8" 4.7# N-80 tubing to TOL at 8834'. Drill out cement to next CIBP at 9100'. Displace hole with 12.5 ppg mud. Drill out CIBP. Note: Be prepared for gas and pressure from open Wolfcamp perfs.
9. RIH to next TOC at ~10,470'. Drill out cement to ~10,900'. CHC. POOH (lay down 2 3/8" tubing).
10. RU wireline truck. Perforate Upper Penn Shale with 3 1/8" casing guns 3 spf (120° phasing) from 10,744'-54' (10') and 10,764'-74' (10'). Total 20' and 60 holes. Note: Correlate to Open Hole Log dated April 4, 1983.
11. RIH w/ 4 1/2" packer (with profile in o-o tool) on 1900' - 2 7/8" 4.6# N-80 IJ tubing and 8800' - 3 1/2" 9.3 # N-80 frac string to ~10,700'. Set packer and pressure test casing to 500 psig, if possible. NU frac tree on top of BOP.
12. RU swab. Swab test.
13. RU BJ Services. Test lines and stimulate UPS as per procedure. Take 5, 10, and 15 minute pressure. RD BJ. Flow test well.
14. If well will not die, RU wireline and set blanking plug in profile below packer. RD tree.
15. POOH laying down 3 1/2" frac string and stand back 2 7/8" IJ tubing.
16. RIH with o-o tool on 1900' 2 7/8" IJ tubing and 8800' 2 7/8" EUE tubing to ~10,700'. Set packer. ND BOP. NU tree. Note: if UPS not able to flow, the packer will be moved above the Wolfcamp perfs and the zones downhole commingled.
17. RU slickline truck and remove blanking plug from profile below packer.
18. RU swab. Swab well on production.
19. RDMO.

<div style="text-align: right; margin-bottom: 10px;">16</div>	<div style="text-align: center; margin-bottom: 10px;">17</div> <h3 style="text-align: center;">OPERATOR CERTIFICATION</h3> <p><i>I hereby certify that the information contained herein is true and accurate to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore granted by this division.</i></p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 60%;"> <div style="border-top: 1px solid black; width: 100%;"></div> </div> <div style="width: 35%; text-align: center;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">09/23/08</div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 60%;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">STEPHANIE A. YSASAGA</div> </div> <div style="width: 35%; text-align: center;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">Printed Name</div> </div> </div>
<div style="text-align: right; margin-bottom: 10px;">18</div>	<div style="text-align: center; margin-bottom: 10px;">18</div> <h3 style="text-align: center;">SURVEYOR CERTIFICATION</h3> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <div style="margin-top: 10px;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">Date of Survey</div> </div> <div style="margin-top: 10px;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">Signature and Seal of Professional Surveyor:</div> </div> <div style="margin-top: 10px; text-align: center;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">See original survey dated 3/15/1982</div> </div> <div style="margin-top: 10px;"> <div style="border-top: 1px solid black; width: 100%;"></div> <div style="margin-top: 5px;">Certificate Number</div> </div>

District I  
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State of New Mexico  
 Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-102  
 Revised October 12, 2005  
 Submit to Appropriate District Office  
 State Lease - 4 Copies  
 Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-24119	<sup>2</sup> Pool Code 974/2	<sup>3</sup> Pool Name Black River WOLFCAMP E
<sup>4</sup> Property Code 374/4	<sup>5</sup> Property Name PURE GRACE STATE	
<sup>7</sup> OGRID No. 6137	<sup>6</sup> Well Number #1	
<sup>8</sup> Operator Name DEVON ENERGY PRODUCTION CO., LP		<sup>9</sup> Elevation 3171.3

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	34	23S	27E		1980	South	1980	East	Eddy

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Leased	<sup>14</sup> Connection Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>16</sup>	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and accurate to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order.	
	Signature 	Date 09/23/08
	Printed Name STEPHANIE A. YSASAGA	
	<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	
Date of Survey Signature and Seal of Professional Surveyor: See original survey dated 3/15/1982		
Certificate Number		

## **HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - a. Characteristics of H<sub>2</sub>S
  - b. Physical effects and hazards
  - c. Proper use of safety equipment and life support systems.
  - d. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas
  - e. Evacuation procedures, routes and first aid.
  - f. Proper use of 30-minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm System
  - a. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
  - a. Windsock at mud pit area should be high enough to be visible
  - b. Windsock at briefing area should be high enough to be visible
  - c. There should be a windsock at entrance to location
4. Condition Flags and Signs
  - a. Warning Sign on access road to location
  - b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well Control Equipment
  - a. See Exhibit "E" & "E-1"
6. Communication
  - a. While working under masks chalkboards will be used for communication.
  - b. Hand signals will be used where chalk board is inappropriate
  - c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drill stem Testing
  - a. Exhausts will be watered
  - b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
  - c. If the location is near to a dwelling a closed DST will be performed.
8. Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.

If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

## Emergency Procedures

In the case of a release of gas containing H<sub>2</sub>S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H<sub>2</sub>S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H<sub>2</sub>S monitors and air packs in order to control the release. Use the “buddy system” to ensure no injuries during the response.

## Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

## Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)



## Devon Energy Corp. Company Call List

<u>Artesia (575)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – BJ Cathey.....	390-5893 .....	748-0176 .....	887-6026
Asst. Foreman – Bobby Jones...	748-7447 .....	748-0176 .....	746-3194
Don Mayberry .....	748-7180 .....	748-5235 .....	746-4945
Montral Walker .....	(575) 390-5182 .....	(575) 748-0193	
Linda Berryman .....	(575) 513-0534 .....	(575) 748-0177	

### Agency Call List

<u>Lea</u>	<u>Hobbs</u>	
<u>County</u>	State Police.....	392-5588
<u>(505)</u>	City Police.....	397-9265
	Sheriff's Office.....	393-2515

Ambulance.....	911
Fire Department .....	397-9308
LEPC (Local Emergency Planning Committee).....	393-2870
NMOCD.....	393-6161
US Bureau of Land Management.....	393-3612

<u>Eddy</u>	<u>Carlsbad</u>	
<u>County</u>	State Police .....	885-3137
<u>(505)</u>	City Police .....	885-2111
	Sheriff's Office .....	887-7551
	Ambulance.....	911
	Fire Department .....	885-2111
	LEPC (Local Emergency Planning Committee).....	887-3798
	US Bureau of Land Management .....	887-6544
	New Mexico Emergency Response Commission (Santa Fe)....	(575) 476-9600
	24 HR .....	(575) 827-9126
	National Emergency Response Center (Washington, DC) .....	(800) 424-8802

### Emergency Services

	Boots & Coots IWC .....	1-800-256-9688 or (281) 931-8884
	Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
	Halliburton .....	(575) 746-2757
	B. J. Services.....	(575) 746-3569
<i>Give</i>	Flight For Life - Lubbock, TX .....	(806) 743-9911
<i>GPS</i>	Aerocare - Lubbock, TX .....	(806) 747-8923
<i>position:</i>	Med Flight Air Amb - Albuquerque, NM .....	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM .....	(575) 272-3115