

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

May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address ConocoPhillips Company 3300 N. "A" Street, Bldg. 6 #247 Midland, TX 79705		² OGRID Number 217817
³ Property Code 31257	⁵ Property Name Vacuum Glorieta East Unit	⁴ API Number 30-025-38210 ⁶ Well No. 024
⁹ Proposed Pool 1 Vacuum; Glorieta		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Westline	County
K	27	17S	35E		1350	South	1875	West	Lea

⁸ 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/Westline	County
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Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3935'
¹⁶ Multiple No	¹⁷ Proposed Depth 6400'	¹⁸ Formation Paddock	¹⁹ Contractor Sledge Drilling	²⁰ Spud Date 02/08/07
Depth to Groundwater 75'		Distance from nearest fresh water well 4700'		Distance from nearest surface water N.A.
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 mil thick Clay <input type="checkbox"/> Pit Volume: 20910 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input checked="" type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24#	1600'	840	Surf.
7-7/8"	5-1/2"	15.5#	6400'	1200	Surf.

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.

New Drill location, proposed schematic attached.

Fresh water mud will be used for drilling the surface section, brine will be used for drilling the production section.

Proposed BOP Program:

Type	Working Pressure	Test Pressure
Annular	5000	2000
Blind Ram	5000	3000
Pipe Ram	5000	3000

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.

Printed name: Celeste G. Dale

Title: Regulatory Specialist

E-mail Address: celeste.g.dale@conocophillips.com

Date: 12/04/06

Phone: (432)688-6884

OIL CONSERVATION DIVISION

Approved by:

Maria Williams

Title:

QC DISTRICT SUPERVISOR/GENERAL MANAGER

Approval Date:

Expiration Date:

Conditions of Approval Attached ☐

DEC 08 2006

**ConocoPhillips' General Plan for
Pit Construction & Closure in Southeast New Mexico
October 2005**

In accordance with Rule 19.15.2.50(B)(2), the following information describes the construction and closure of drilling pits on COPC Southeast New Mexico (SENM) locations. This will become COPC's standard procedure on all SENM locations. If pits are constructed or closed out of the norm, a separate permit application will be submitted.

Drill Pit Construction:

General:

- Depth to Ground Water, Wellhead Protection Area & Distance to Nearest Surface Water Body ranking criteria will be site specific and information will be provided on APD or Sundry form C-103.
 - In the case where groundwater is encountered during the construction of a drilling pit, the NMOCD will be contacted and COPC will either try to find an alternative well location or use a closed steel tank system.
- The pit size and design is specific to well depth and location conditions.
- Topsoil will be stockpiled in the construction zone for later use in restoration.
- Pits will not be located in natural drainages.
- Diversion ditches will be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit.
- Under no circumstance will pits be cut and drained during the drilling operations.
- A well sign will be on location identifying ConocoPhillips as the operator.
- Waste material at construction sites shall be disposed of promptly at an appropriate waste disposal site. No trash shall be disposed of in the drilling pit.
- Immediately after cessation of drilling and completion pits shall have any visible or measurable layer of oil removed from the surface.
- Prior to any pit construction the OCD will be notified at least 48 hours in advance.

Reserve Pit

- Pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids during the drilling operations.
- Pits will be lined with impervious material at least 12 mils thick, which meets long-term standards as referenced in the guidelines. Padding (hay or pad dirt) is used underneath the synthetic liner in rocky areas.
- The pit will have adequate capacity to maintain 2 feet of free board.
- The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out.

Blow Pit

- Pits will be constructed to allow gravity flow to discharge into lined drill pit.
- The lower half of the pit, which is toward the drain line to the fully lined reserve pit, will be lined.
- Design of pit has been changed to reduce potential for trapped fluid at tail end of pit
- Pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves off.
- Corrective actions will be taken to ensure the pit does not contain fluid.
 - This includes pumping out trapped fluid or fluid in low spots.
 - Filling in low spots in the blow pit that are below the elevation of the drain pipe to the lined pit.
 - Removing any high spots in blow pit that could trap rain water.

Pit Monitoring and Maintenance

- COPC will perform an inspection of the location including pit compliance within 72 hours of rig moving off.
- COPC will review the OCD pit requirements and the requirements included in this document with all COPC and contract personnel responsible for construction and closure of pits.

Drill Pit Closure:

- Good faith effort is made to close pits within required timeframe on Federal wells (90 days) and State/Fee wells (6 months). If pits will remain open past due dates, an extension will be requested by sundry notice to allow pits to remain open.
- The BLM is notified 24 hours prior to fluid hauling on Federal wells.
- The NMOCD will be notified 48 hours prior to closing of any pit.
- Aeration of pit fluids will be confined within pit area.
- Wells which have not penetrated a salt section and where less than 9.5# brine was used during drilling will be encapsulated below-grade.
 - Encapsulation will be accomplished by mixing earthen materials with the pit contents to stiffen the pit contents, as necessary, folding the edges of the liner over the stiffened mud and cuttings and covering the encapsulated wastes and liner with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
- Wells which have penetrated a salt section or 9.5# brine or greater was used during drilling may be capped and encapsulated insitu or deep trench buried and capped below-grade.
 - Capping and encapsulation insitu will be accomplished by mixing earthen materials with the pit contents, as necessary to stiffen the pit contents sufficiently to provide physical stability and support for the pit cover, folding the edges of the liner over the stiffened mud and cuttings; capping the pit with either a 1-foot thick clay cap compacted to ASTM standards, or a 20 mil minimum liner and covering the cap with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
 - Deep trench burial and capping will be accomplished by digging a trench adjacent to the drilling pit; lining the trench with a 12 mil liner; mixing earthen materials with the pit contents, as necessary to stiffen the pit contents sufficiently to provide physical stability and support for the trench cap; capping the trench with either a 1-foot clay cap compacted to ASTM standards, or a 20 mil minimum liner and covering the cap with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
 - When constructing the cap, the liner or clay cap will overlap the underlying pit or trench area by at least 3 feet in all directions.
- If the depth to groundwater is less than 50 feet or if the well is located less than 200 feet from a domestic fresh water well or spring or less than 1000 feet from any other fresh water well or if the distance to surface water body is less than 200 feet; the well is considered to be in sensitive area. (Keep in mind that these are not the only scenarios of sensitive area.)
 - A special encapsulation or solidification process prior to covering the pit contents will be accomplished by mixing the pit contents with cement or some other solidifying product at approximately a 3 to 1 ratio with samples taken and approved by the OCD prior to closure and then contents buried as described above.
 - OCD must give written approval on any special closure or encapsulation prior to any work being done.
- The reserve pit will then be backfilled, leveled and contoured so as to prevent run-off to surface water.
- The area will be reseeded with the appropriate seed mixture.
- The final grade of reserve pit (after reclamation) will be returned to natural contour of the land such that no pooling will occur.
- A closure report will be submitted on Form C-144 on all drilling pits.
- **Note: On Federal wells, a BLM inspector may witness pit closures and may mandate specific modifications to that which is mentioned above. If this happens, OCD will be contacted for concurrence and modifications will be noted in the closure report.**

CASING & CEMENTING PROGRAM PROPOSAL
Vacuum Glorieta East Unit Ph 4 27-024

Datum: RKB (12' above ground level)

Conductor

13-3/8" conductor set at 40' to 80' with rat hole machine

Surface Casing

Size 8 5/8 in
 Wt. 24 ppf
 Grade: J-55 ppf
 Conn: STC ppf

Hole Size 12 1/4 in
 Excess Cmt 120 - 150 %
 T.O.C. SURFACE

Surface Casing Shoe set at 1600' to 1650' MD RKB
 TD of 12-1/4" hole at 1610' to 1660' MD RKB

Propose Variance to allow us to test the surface casing to 1000 psi instead of 1500 psi.

Production Casing:

Size 5 1/2 in
 Wt. 15.5 ppf
 Grade: J-55 ppf
 Conn: LTC ppf

Hole Size 7 7/8 in
 Lead Slurry 190 % Excess Cmt on Open Hole Ann Vol
 Tail Slurry 90 % Excess Cmt on Open Hole Ann Vol
 T.O.C. SURFACE

Production Casing Shoe set at 6340' to 6390' MD RKB
 TD of 7-7/8" hole at 6350' to 6400' MD RKB

Production casing cement volumes will be adjusted based on open hole caliper log data if available.

Schematic prepared by:
 Steven O. Moore, Drilling Engineer
 04-December-2006

11" 5M x 7 1/16" 5M Tubing Head
 8-5/8" SOW x 11" 5M Casing Head

☒ New
☐ Used

Surface Cement

Spacer: 20 bbls fresh water

Lead Slurry:
 610 - 700 sx 35/65 POZ:Class C
 + 5% bwow D44 salt
 + 6% D20 bentonite
 + 2% S1 Calcium Chloride
 + 0.25 pps D29 celloflake
 + CemNet if needed.
 Mix Weight = 12.8 ppg,
 Yield = 1.97 cuft/sx yield,
 Mix Water = 10.54 gal/sx
 Top of Lead Slurry at Surface

Tail Slurry:
 230 - 260 sx Class C Cement
 + 2% S1 calcium chloride
 + 0.25 pps D29 celloflake
 + CemNet if needed.
 Mix Weight = 14.8 ppg,
 Yield = 1.34 cuft/sx yield,
 Mix Water = 6.29 gal/sx
 Length of Tail Slurry: 330'
 Top of Tail Slurry at 1270' - 1320' MD RKB

Production Cement

Spacer: 20 bbls fresh water

Lead Slurry:
 620 sx 50/50 POZ:Class C
 + 5% bwow D44 salt
 + 10% D20 bentonite
 + 0.2% D167 Fluid Loss Additive
 + 0.2% D65 Dispersant
 + 0.25 pps D29 celloflake
 + CemNet if needed
 Mix Weight = 11.8 ppg,
 Yield = 2.54 cuft/sx yield,
 Mix Water = 14.71 gal/sx
 Top of Lead Slurry at Surface

Tail Slurry:
 580 sx 50:50 POZ:Class H
 + 5% D44 Salt (bwow)
 + 2% D20 Bentonite
 + 0.4% D167 Fluid Loss Additive
 + 0.4% D65 dispersant
 + CemNet if needed
 Mix Weight = 14.2 ppg,
 Yield = 1.36 cuft/sx yield,
 Mix Water = 6.32 gal/sx
 Top of Tail Slurry at 4000' MD RKB

Displacement: 2% KCL
or Fresh Water

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

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

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 38210	Pool Code 62160	Pool Name Vacuum; Glorieta
Property Code 31257	Property Name VACUUM GLORIETA EAST UNIT PH 4	Well Number 27-024
OGRID No. 217817	Operator Name CONOCOPHILLIPS	Elevation 3935'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	27	17 S	35 E		1350	SOUTH	1875	WEST	LEA

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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

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

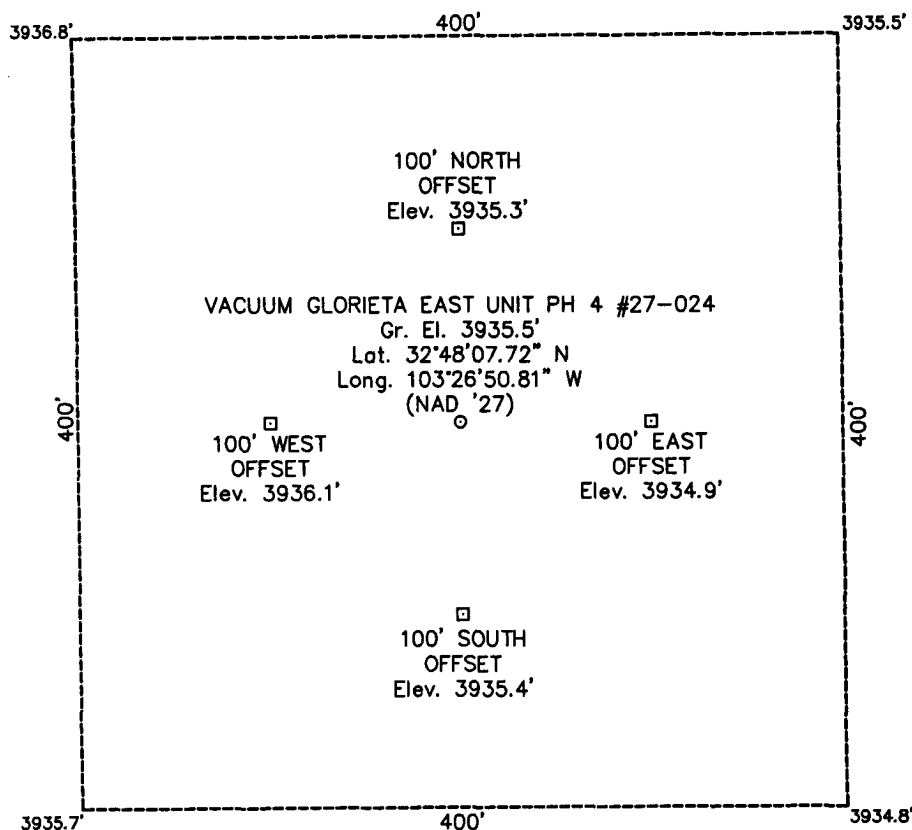
<p>Plane Coordinate X = 772,206.8 Y = 656,671.2</p>	<p>NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased 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 is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Celeste G. Dale</i> 12/04/06 Signature Date Celeste G. Dale Printed Name</p>	
		<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>November 15, 2006 Date of Survey Signature & Seal of Professional Surveyor LVA <i>[Signature]</i> W.O. Num. 2006-1176 Certificate No. MACON McDONALD 12185</p>	

SECTION 27, TOWNSHIP 17 SOUTH, RANGE 35 EAST, N.M.P.M.

LEA COUNTY

NEW MEXICO

L-2006-1176-A

**DRIVING DIRECTIONS**

FROM THE INTERSECTION OF STATE HIGHWAY 8 AND COUNTY ROAD 50 IN BUCKEYE, NM GO EAST ON SAID COUNTY ROAD 50 3.3 MILES TO A LEASE ROAD ON NORTH (LEFT) SIDE OF SAID ROAD, THEN GO NORTH ON SAID LEASE ROAD 0.2 MILE TO A POINT APPROXIMATELY 200 FEET SOUTHWEST OF PROPOSED LOCATION.

CONOCOPHILLIPS**VACUUM GLORIETA EAST UNIT PH 4 #27-024**

Located 1350' FSL & 1875' FWL, Section 27
Township 17 South, Range 35 East, N.M.P.M.
Lea County, New Mexico

Drawn By: LVA

Date: November 27, 2006

Scale: 1"=100'

Field Book: 331 / 38-39

Revision Date:

Quadrangle: Lovington SW

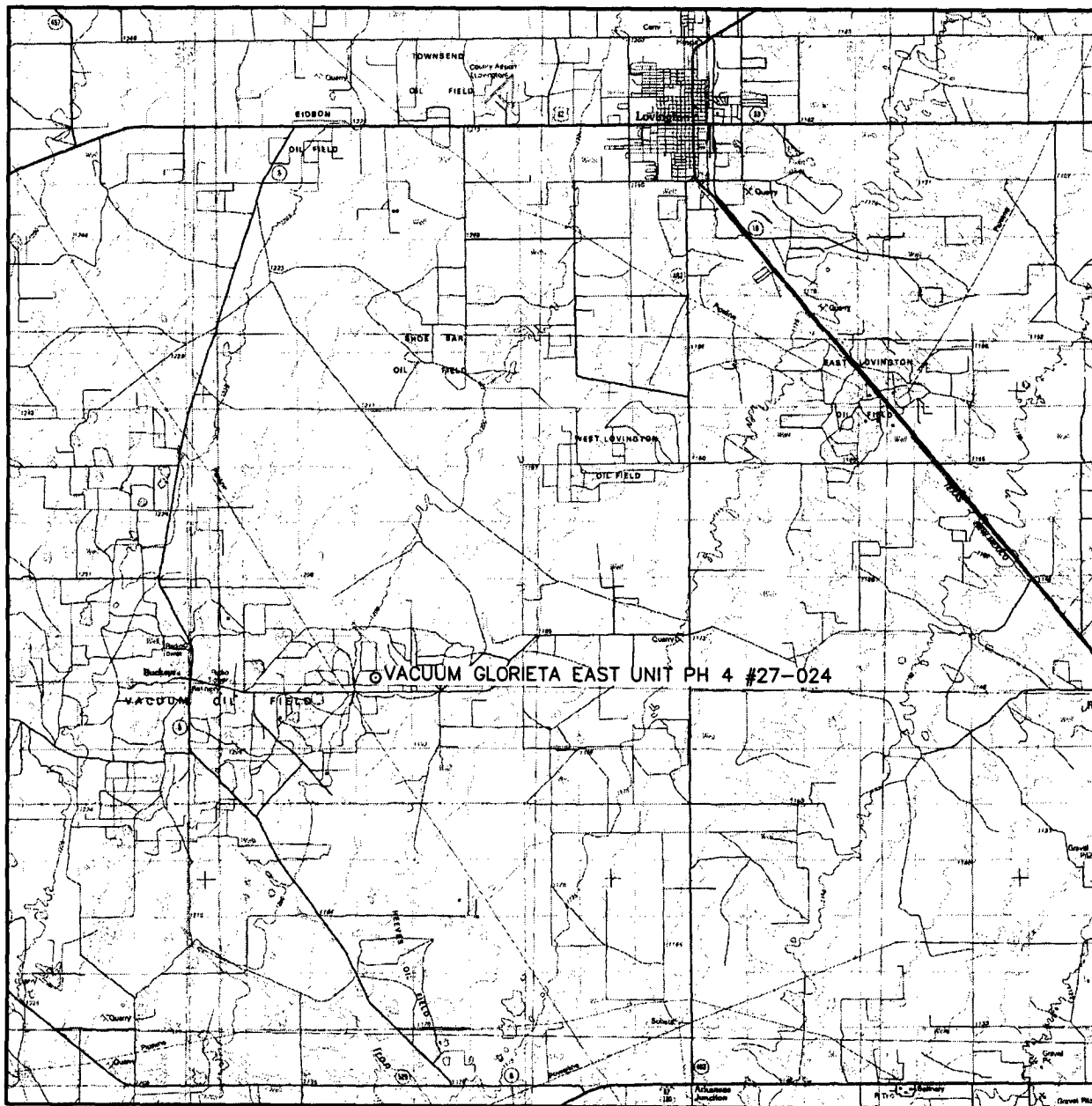
W.O. No: 2006-1176

Dwg. No.: L-2006-1176-A



110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 3 MILES

SEC. 27 TWP. 17-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1350' FSL & 1875' FWL

ELEVATION 3935'

OPERATOR CONOCOPHILLIPS

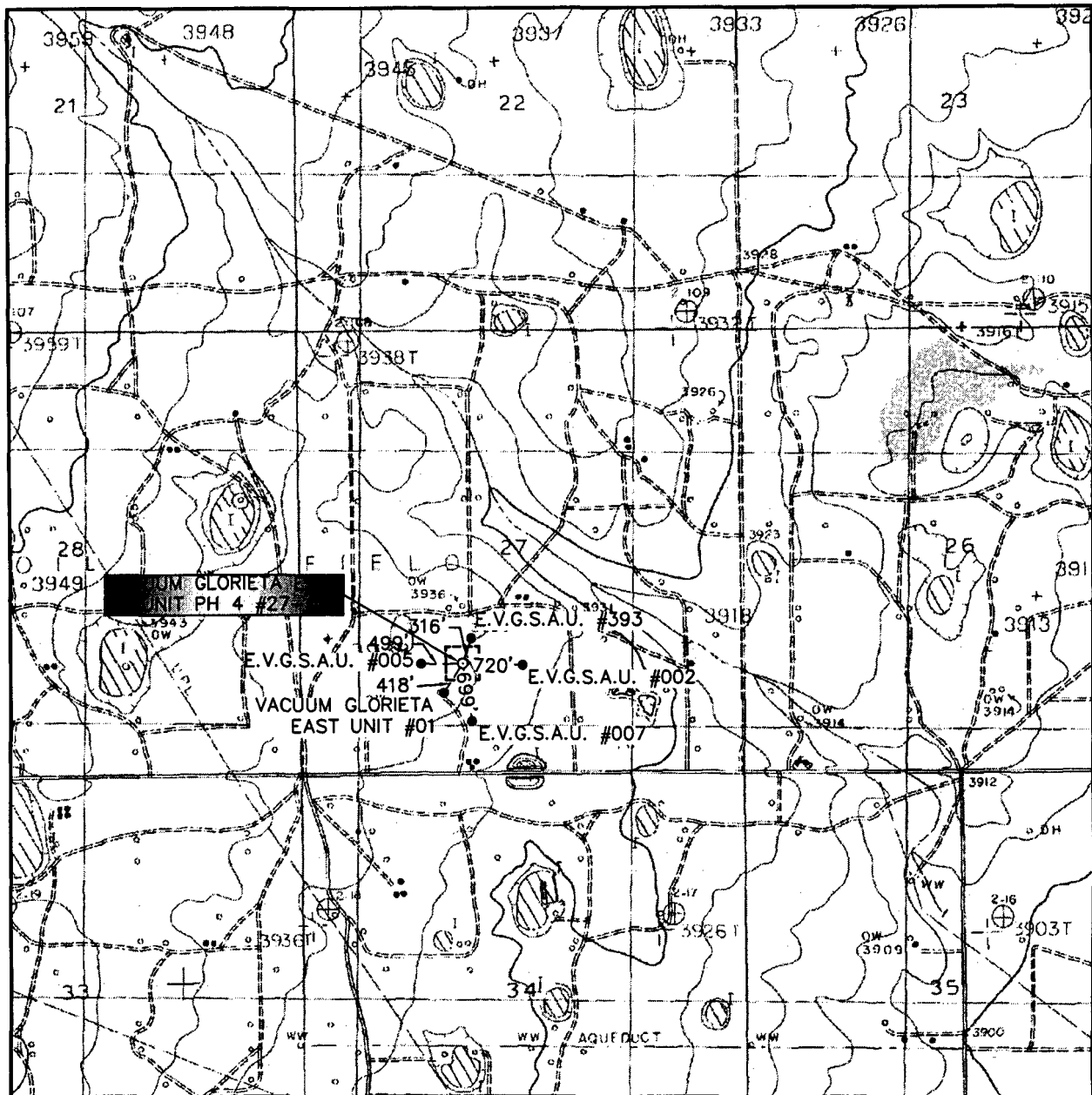
LEASE VACUUM GLORIETA EAST UNIT PH 4



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
LOVINGTON SW - 5'

SEC. 27 TWP. 17-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1350' FSL & 1875' FWL

ELEVATION 3935'

OPERATOR CONOCOPHILLIPS

LEASE VACUUM GLORIETA EAST UNIT PH 4

U.S.G.S. TOPOGRAPHIC MAP
LOVINGTON SW, N.M.



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX