

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 Nadel and Gussman HEYCO, LLC. PO Box 1933, Roswell NM 88202-1933		² OGRID Number 258462
		³ API Number 30 -
⁴ Property Code 12955	⁵ Property Name HEYCO STATE	⁶ Well No. #002
⁹ Proposed Pool 1 Middle Morrow		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/West line	County
F	32	20S	30E		1650	NORTH	1980	WEST	EDDY

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/West line	County
F	32	20S	30E		1650	NORTH	1980	WEST	EDDY

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3338'
¹⁶ Multiple	¹⁷ Proposed Depth 12675	¹⁸ Formation MORROW	¹⁹ Contractor	²⁰ Spud Date Asap
Depth to Groundwater 170' approx		Distance from nearest fresh water well 1/2 mile		Distance from nearest surface water 1/2 mile
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 20_mils thick Clay <input type="checkbox"/> Pit Volume: 10000 bbls Drilling Method: Rotary				
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
20"	16"	65#	450'	450	circ to surface
14 3/4"	13 3/8"	48# / 54.4#	1700'	430	circ to surface
12 1/4"	9 5/8"	36#	3630'	700	circ to surface
8 3/4"	5 1/2"	17#	12675'	1800	cmt to 3400'

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.

DEPTH TYPE OF MUD
0 - 450' 8.4 to 8.8 ppg FW spud mud
450 - 1700' 10.0 to 10.3 ppg brine
1700 - 3630' 8.4 to 8.5 ppg FW
600 - 12675' 9.5 to 10.2 ppg polyer w/6-8 cc fluid loss

PRESSURE CONTROL EQUIPMENT

5000psi BOP w/ANNULAR, UPPER AND LOWER KELLY COCK
ROTATING HEAD PRIOR TO DRILLING 9 5/8" SHOE

OTHER

Oil Conservation Division
Case No. 6
Exhibit No. 6

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 <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Keith Cannon		Approved by:	
Title: Drilling Superintendent		Title:	
E-mail Address: kcannon@heycoenergy.com		Approval Date:	
Date: 3/18/08		Expiration Date:	
Phone: (505) 623-6601		Conditions of Approval Attached <input type="checkbox"/>	

DISTRICT I

1625 N. FRENCH DR., ROBB, NM 88240

DISTRICT II

1501 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State EDDYac - 4 Copies

Fee EDDYac - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		GOLDEN LANE, MORROW
Property Code 12955	Property Name HEYCO STATE	Well Number 2
OGRID No. 258462	Operator Name NADEL AND GUSSMAN HEYCO, LLC	Elevation 3338'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	32	20-S	30-E		1650	NORTH	1980	WEST	EDDY

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 320	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

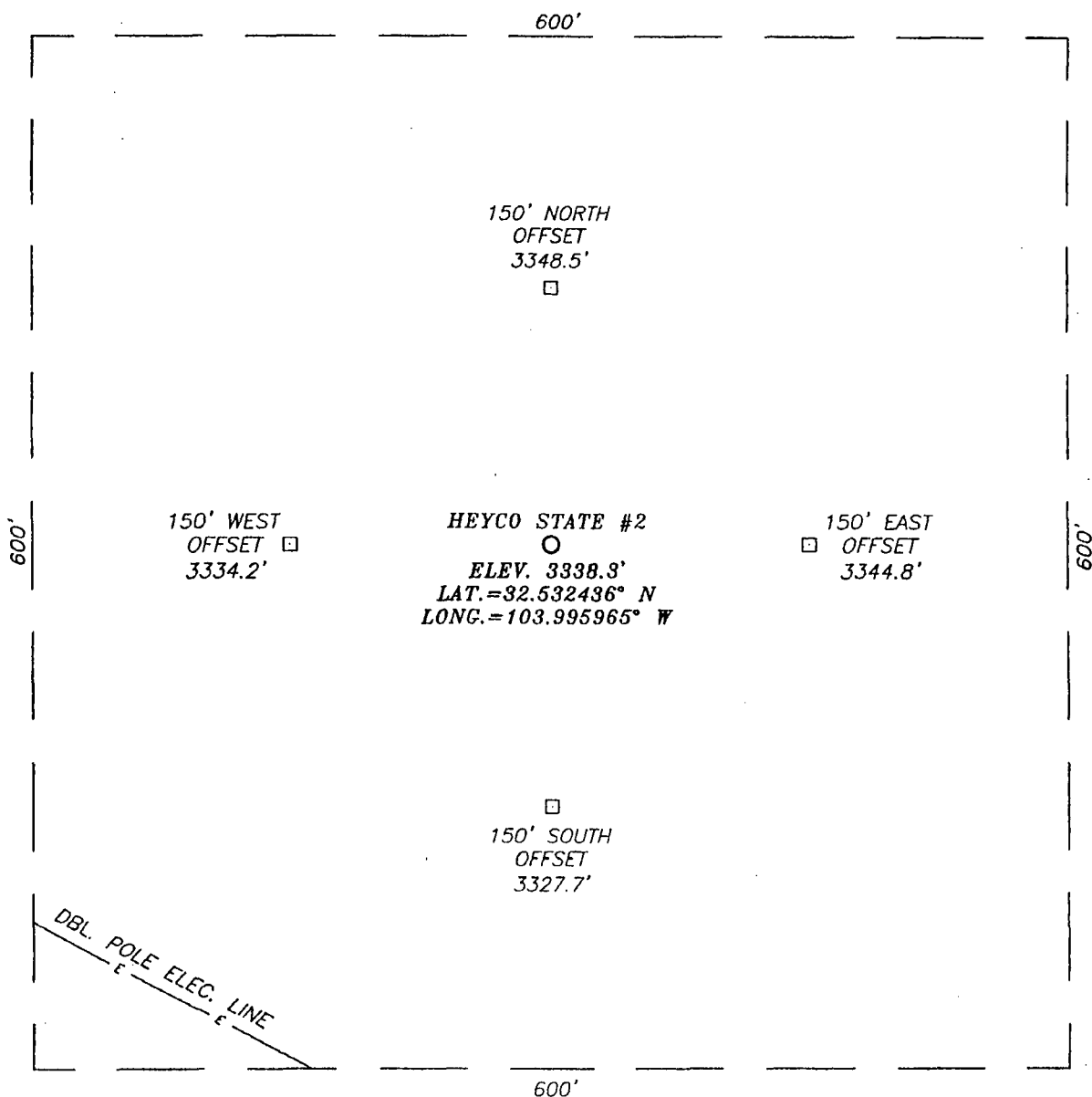
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Keith Cannon</i> 3-18-08 Signature Date</p> <p>Keith Cannon 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>FEBRUARY 13 2008</p> <p>Date Surveyed</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>Ronald J. Eidson</i> 2/15/08</p> <p>3239</p> <p>08-11-0130</p>
	<p>Certificate No. GARY C. EIDSON 12841 RONALD J. EIDSON 3239</p>

GEODETIC COORDINATES
NAD 27 NME.

Y=557577.3 N
X=603973.7 E

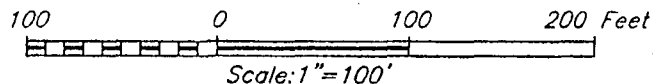
LAT.=32.532436° N
LONG.=103.995965° W

SECTION 32, TOWNSHIP 20 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



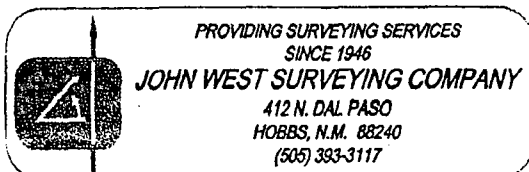
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. 62-180 AND STATE HIGHWAY 360, GO NORTH ON STATE HIGHWAY 360 APPROX. 0.4 MILES. TURN RIGHT AND GO EAST ON CALICHE ROAD 0.3 MILES. BEND RIGHT AND GO SOUTHEAST APPROX. 0.15 MILES TO THE EXISTING HEYCO STATE #1 WELL. THIS LOCATION IS APPROX. 1230 FEET EAST.



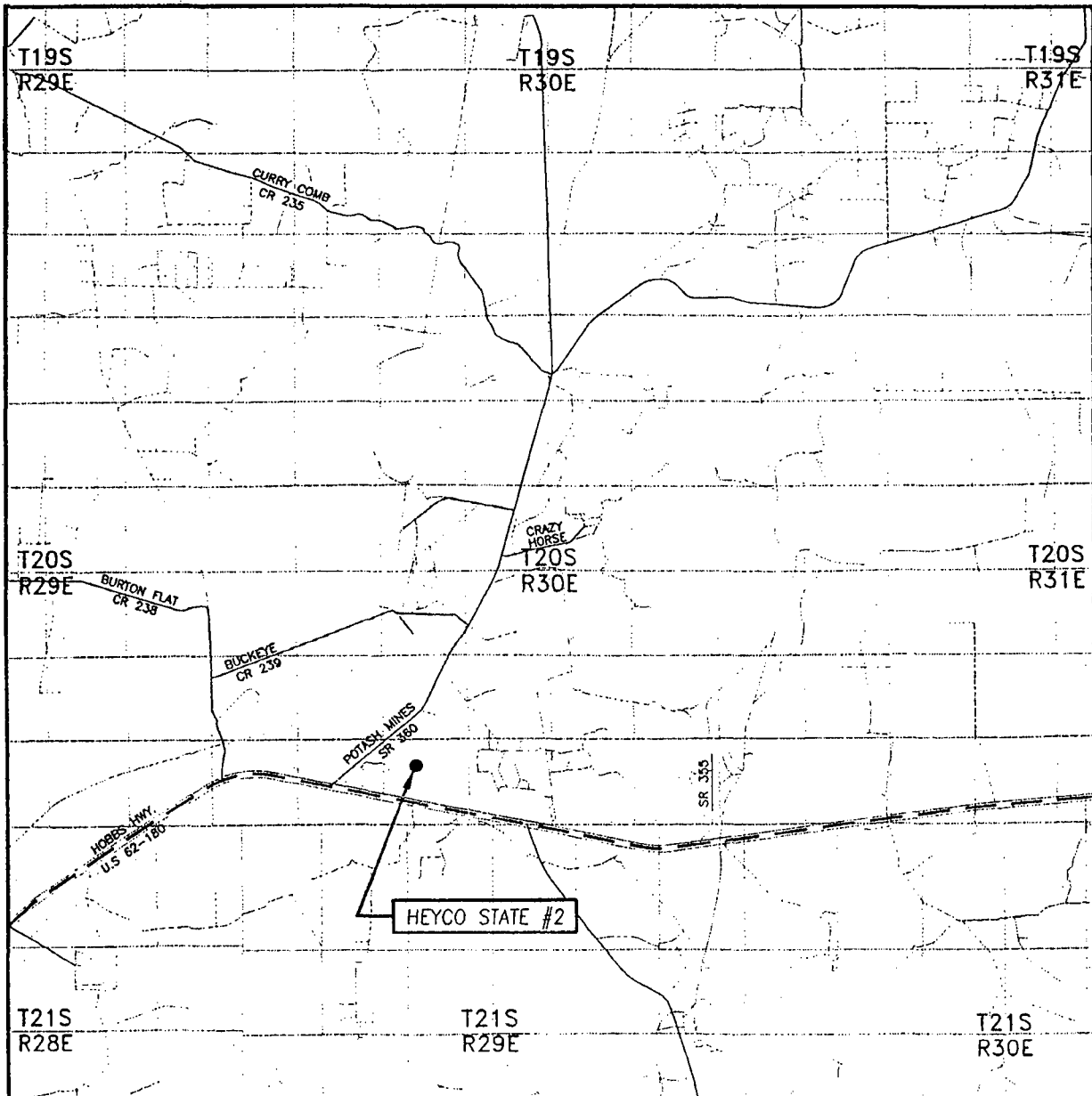
NADEL AND GUSSMAN HEYCO, LLC

HEYCO STATE #2 WELL
LOCATED 1650 FEET FROM THE NORTH LINE
AND 1980 FEET FROM THE WEST LINE OF SECTION 32,
TOWNSHIP 20 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.




Survey Date: 02/13/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.0130	Dr By: DSS
Date: 02/14/08	08110130
	Scale: 1"=100'

VICINITY MAP



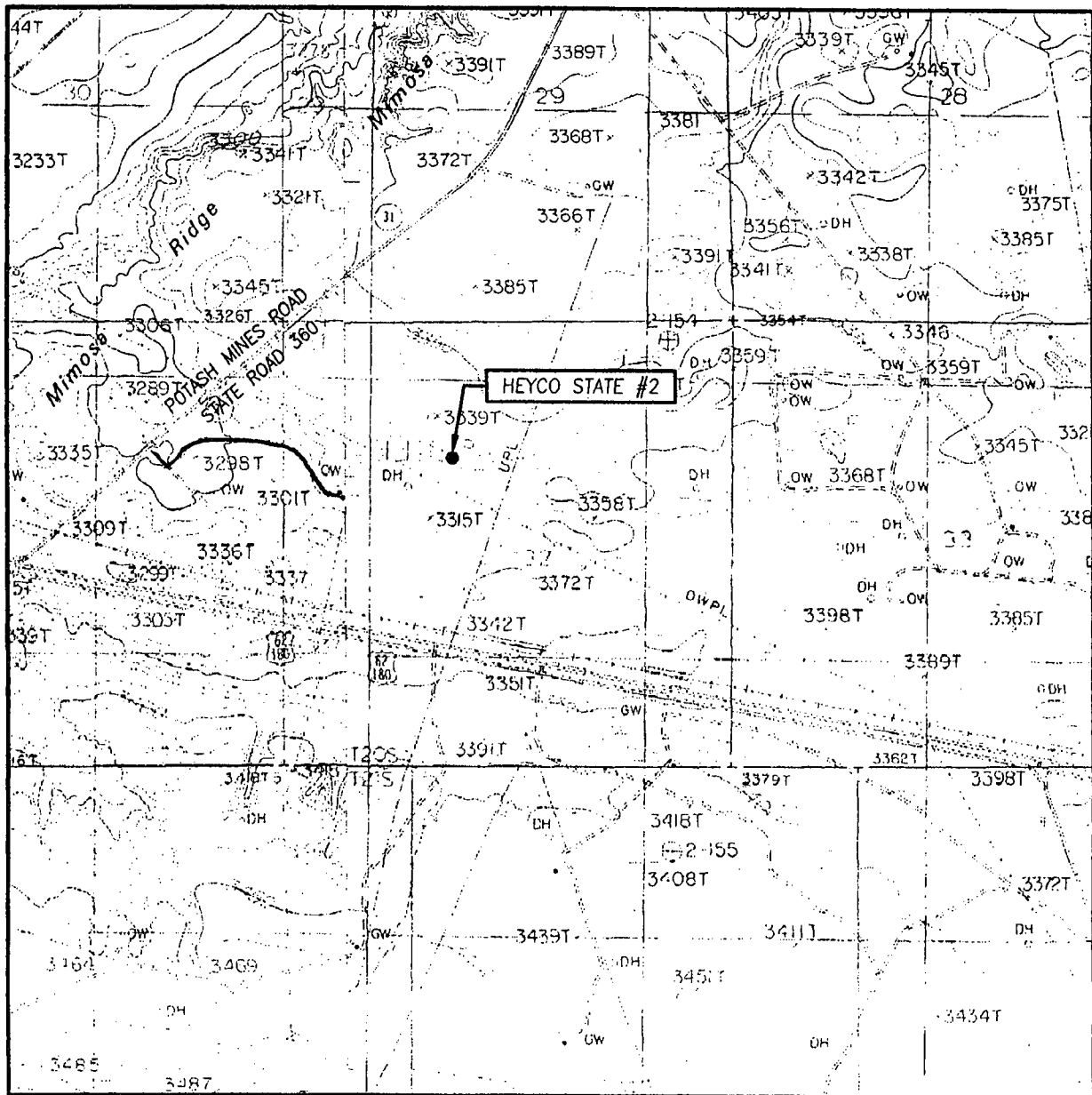
SCALE: 1" = 2 MILES

SEC. 32 TWP. 20-S RGE. 30-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 1650' FNL & 1980' FWL
 ELEVATION 3338'
 OPERATOR NADEL AND GLESSMAN HEYCO, LLC
 LEASE HEYCO STATE



PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
TOWER HILL NORTH, N.M. - 10'
ILLINOIS CAMP SE, N.M. - 5'

SEC. 32 TWP. 20-S RGE. 30-E

SURVEY _____ N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1650' FNL & 1980' FWL

ELEVATION 3338'

OPERATOR NADEL AND GUSSMAN HEYCO, LLC

LEASE HEYCO STATE

U.S.G.S. TOPOGRAPHIC MAP
TOWER HILL NORTH, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

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

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐ Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☐

Operator: Nadel and Gussman Heyco, LLC Telephone: (505) 623-6601 e-mail address: kcannon@heycoenergy.com		
Address: P.O. Box 1936 Roswell N.M. 88202		
Facility or well name: Heyco State #2 API #: U/L or Qtr/Qtr Unit - F Sec 32, T20S, R R30E		
County: Eddy Co. Latitude 32.532436° N Longitude 103.995965° W NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
Pit Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 20 mil Clay <input type="checkbox"/> Pit Volume 10,000 bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(0 points) xxx
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points) xxx
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)xxx
Ranking Score (Total Points)		0

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results.

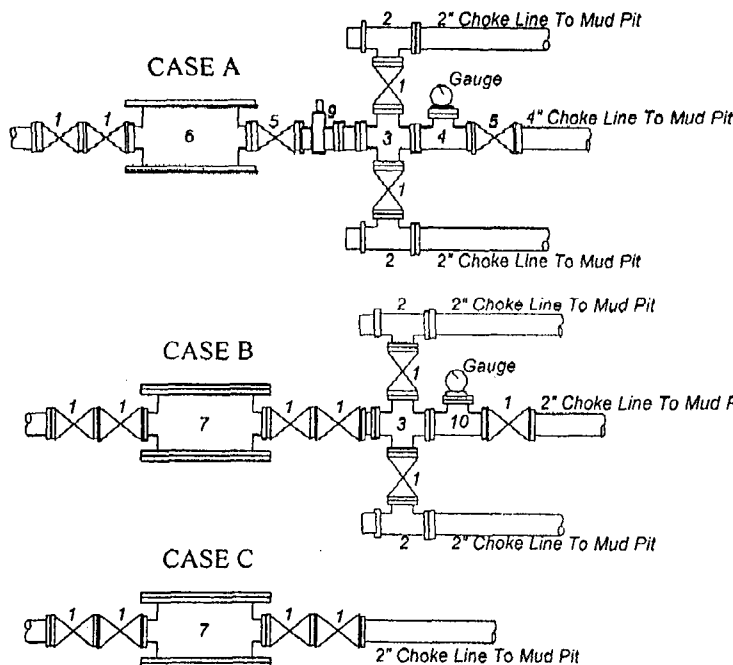
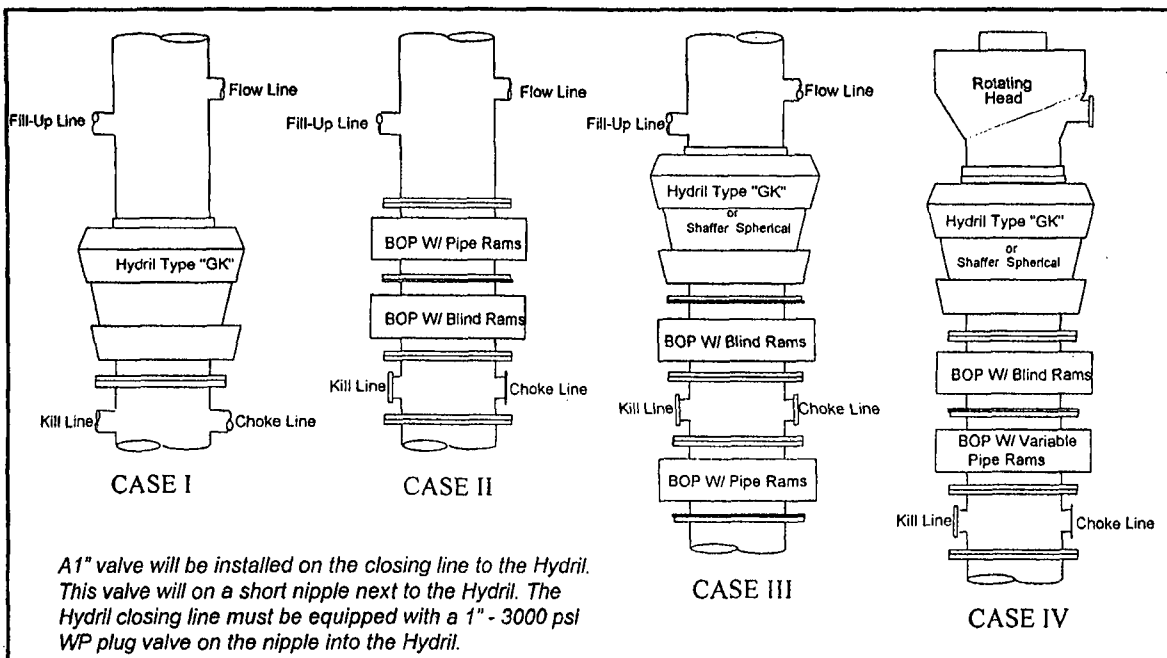
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		
Date: 3/18/08	Printed Name/Title Keith Cannon - Drilling Superintendent	
Signature _____		
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Approval:		
Printed Name/Title	Signature _____	Date: _____

Nadel and Gussman Heyco, LLC

MINIMUM BLOWOUT PREVENTER REQUIREMENTS



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13-5/8"	IV	5000 psi	A

***Rotating head required**

Bradenhead : _____
Mfr: _____
Size: _____ Type: _____

Legend

- 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
- 2" flanged adjustable chokes, min. 1" full opening & equipped with hard trim.
- 4" x 2" flanged steel cross.
- 4" flanged steel tee.
- 4" flanged all steel valve (Type as in no. 1).
- Drilling Spool with 2" x 4" flanged outlet.
- Drilling Spool with 2" x 2" flanged outlet.
- 2" x 2" flanged steel cross.
- 4" pressure operated gate valve.
- 2" flanged steel tee.

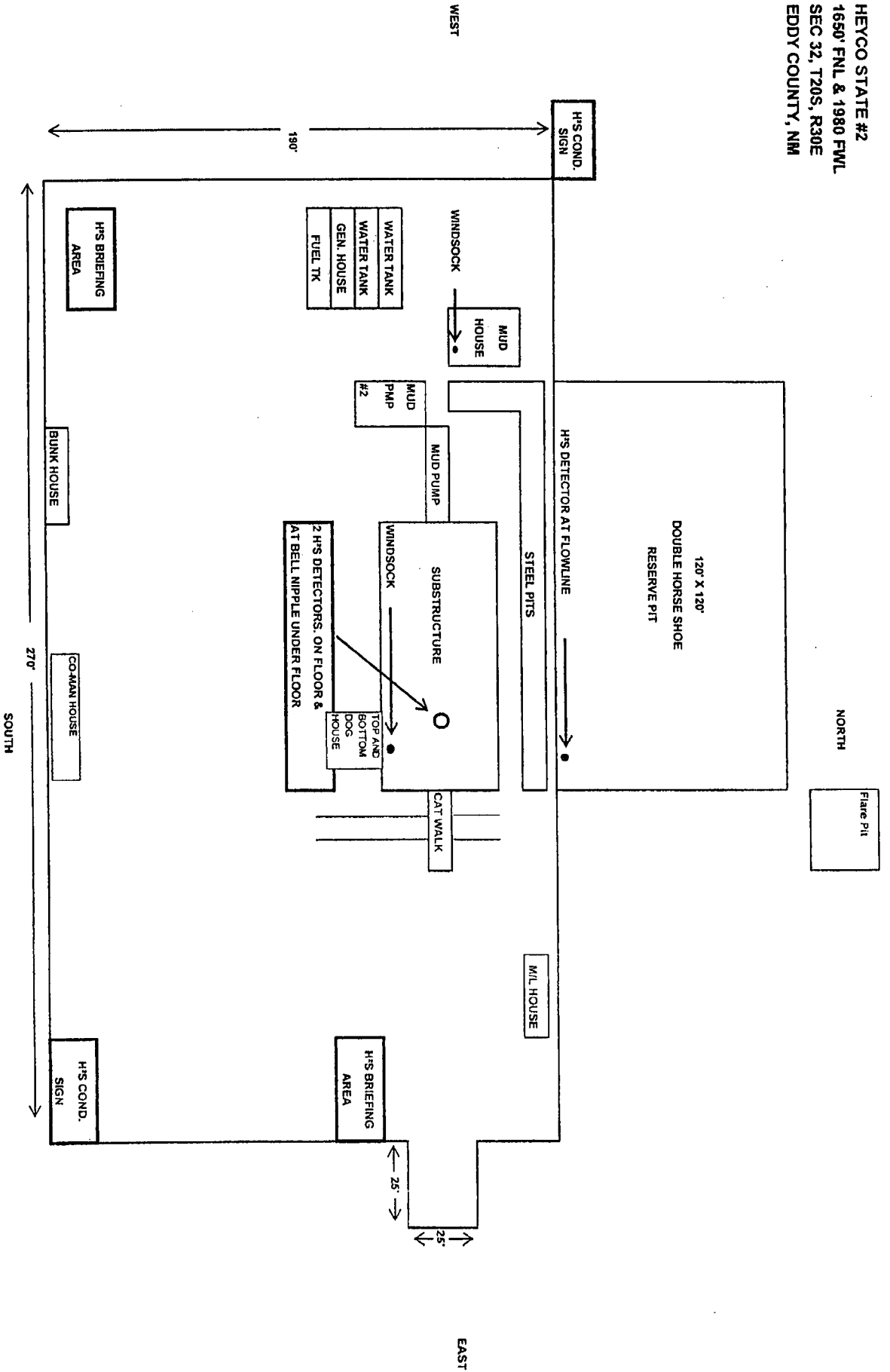
Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

(10-31-96) WTXBOPS.PPT

EXHIBIT "D" LOCATION DIAGRAM

HEYCO STATE #2
1650' FNL & 1980 FWL
SEC 32, T20S, R30E
EDDY COUNTY, NM



NADEL AND GUSSMAN HEYCO, L.L.C.
P.O. BOX 1936
ROSWELL N.M. 88202-1936
(575) 623-6601 (Office)
(575) 624-5321 (Fax)

3/7/08

Mr. Bryan Arrant
District 2 Geologist
New Mexico Oil and Gas Division
1301 West Grand Avenue
Artesia, NM 88210

Re: Heyco State #2
1650' FNL & 1980' FWL
Unit Letter F, Sec. 32-T20S-R30E
Eddy, NM
Rule 118 H2S Exposure

Dear Mr. Arrant,

Nadel and Gussman Permian have evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out the intermediate casing and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

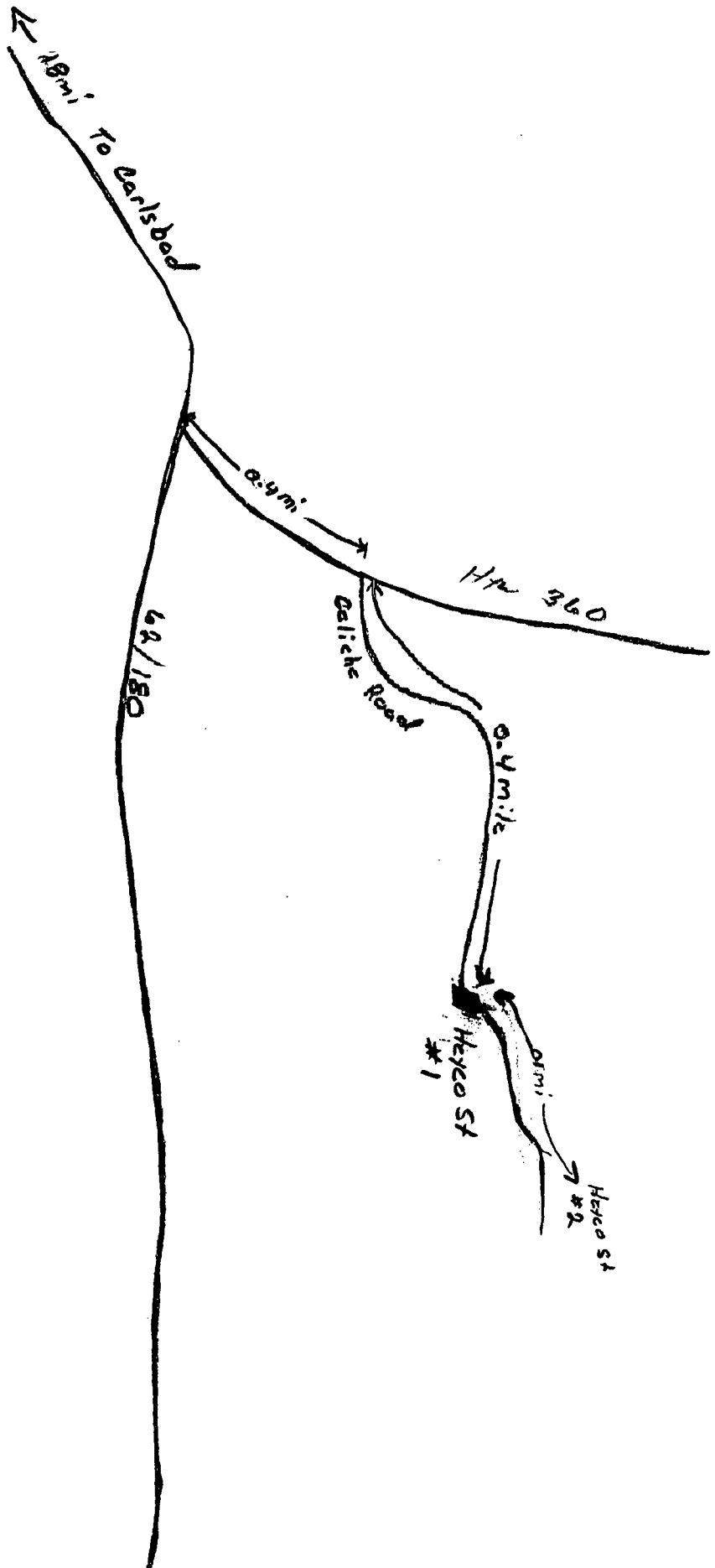
Sincerely,

Keith Cannon
Drilling Superintendent

Hydrogen Sulfide Drilling Operations Plan

1. Company and Contract personnel admitted on location should be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S.
 - B. Physical Effects and Hazards.
 - C. Proper Use of Safety Equipment and Life Support Systems.
 - D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
 - E. Evacuation Procedure, Routes and First Aid.
 - F. Proper Use of 30 minute Pressure Demand Air Pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S 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.
 1. Green Flag, Normal Safe Condition.
 2. Yellow Flag, Indicates Potential Pressure and Danger.
 3. Red Flag, Danger H₂S Present in Dangerous Concentration
Only Emergency Personnel Admitted to Location.
5. Well Control Equipment
 - A. See Attached Diagram.
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 or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.
7. Drillstem 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 Location is near any Dwelling a Closed DST will be Performed.
8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.

Heyco St #2



Keith Cannon

From: Terry West [terryw@naguss.com]
Sent: Tuesday, February 26, 2008 4:15 PM
To: Keith Cannon
Subject: RE: Heyco State#2 APD

Keith,

For hole, pipe & cement we are looking at:

20" hole & 16"/65#/H-40/STC	casing to 450'	cement to surface w/ 450 sx
14-3/4" hole & 13-3/8"/48#/H-40 & 54.5#/J-55/STC	casing to 1700'	cement to surface w/ 430 sx
12-1/4" hole & 9-5/8"/36#/J-55/STC	casing to 3630'	cement to surface w/ 700 sx
8-3/4" hole & 5-1/2"/17#/HC-P110/LTC	casing to 12,675'	cement to 3400' w/ 1800 sx (2 stages)

For mud we are looking at:

0 to 450':	8.4 to 8.8 ppg FW Spud Mud
450' to 1700':	10.0 to 10.3 ppg Brine
1700' to 3630':	8.4 to 8.5 ppg FW
3630' to 10,600':	8.4 to 8.9 ppg FW/Cut Brine
10,600' to 12,675':	9.5 to 10.2 ppg Polymer w/ 12-15 CC Fluid Loss

Thanks!!!

Terry

Terry West
Nadel & Gussman Permian, LLC
Cell: 432-238-2874
Office: 432-682-4429 x-15
E-Mail: TerryW@NaGuss.com

2/28/2008