

Phone: 918-585-1100

State of New Mexico

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

1220 SOUTH ST. FRANCIS DR.

State Lease - 4 Copies

Santa Fe, New Mexico 87505

Fee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-29871		Pool Code	Pool Name Happy Valley Morrow Gas
Property Code	Property Name McGRUDER 13		Well Number 1 ST
OGRID No. 215009	Operator Name CIMAREX ENERGY COMPANY		Elevation 3404'

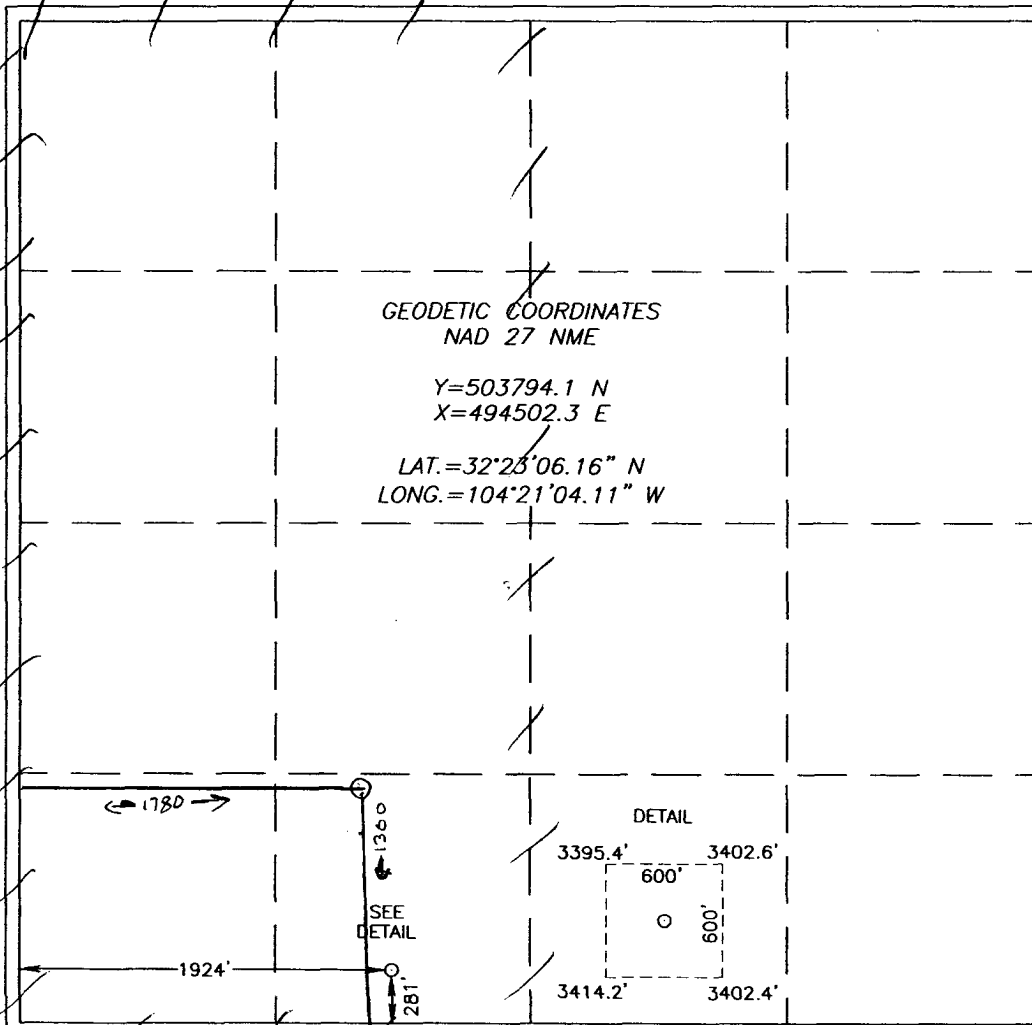
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	22-S	25-E		281	SOUTH	1924	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
N	13	22-S	25-E		1300	South	1780	West	Eddy
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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Sharon LaValley
Signature
Sharon LaValley
Printed Name
Drilling Tech
Title
2-18-05
Date

SURVEYOR CERTIFICATION

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.

GARY EIDSON
Signature & Seal of Professional Surveyor
FEBRUARY 14, 2005
Date Surveyed
12641
Certificate No. GARY EIDSON 12641



Cimarex Energy Co., Inc.

Eddy Co., New Mexico

McGruder 13 #1 ST

McGruder 13 #1 ST

S-Well #1

Plan: Plan #1

Standard Planning Report

17 February, 2005

RECEIVED

FEB 28 2005

OPERATIONS





Black Viper Energy Services

Planning Report



Database: EDM 2003.5 Single User Db
Company: Cimarex Energy Co., Inc.
Project: Eddy Co., New Mexico
Site: McGruder 13 #1 ST
Well: McGruder 13 #1 ST
Wellbore: S-Well #1
Design: Plan #1

Local Co-ordinate Reference: Well McGruder 13 #1 ST
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project Eddy Co., New Mexico
Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Ground Level

Site McGruder 13 #1 ST

Site Position:
From: Lat/Long
Position Uncertainty: 0.00 ft

Northing: 512561.57 ft
Easting: 423807.83 ft
Slot Radius: in

Latitude: 32° 24' 32.044" N
Longitude: 104° 34' 48.803" W
Grid Convergence: -0.13 °

Well McGruder 13 #1 ST

Well Position +N/-S 0.00 ft Northing: 512561.57 ft Latitude: 32° 24' 32.044" N
+E/-W 0.00 ft Easting: 423807.83 ft Longitude: 104° 34' 48.803" W
Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 0.00 ft

Wellbore S-Well #1

Magnetics Model Name Sample Date Declination Dip Angle Field Strength
(°) (°) (nT)

IGRF2005-10 2/17/2005 8.79 60.32 49276

Design Plan #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 5450.00

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
(ft) (ft) (ft) (°)

0.00 0.00 0.00 351.63

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
5450.00	4.74	57.28	5448.80	48.23	13.13	0.00	0.00	0.00	0.00	
5797.07	9.31	349.70	5793.65	83.67	20.19	2.50	1.32	-19.47	-97.65	
11680.90	9.31	349.70	11600.00	1020.00	-150.00	0.00	0.00	0.00	0.00	PBHL [McG13#1ST]

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5450.00	4.74	57.28	5448.80	48.23	13.13	45.81	0.00	0.00	0.00
KOP - Build 2.5/100									
5797.07	9.31	349.70	5793.65	83.67	20.19	79.84	2.50	1.32	-19.47
EOC - Hold 9.31*									
11680.90	9.31	349.70	11600.00	1020.00	-150.00	1030.97	0.00	0.00	0.00



Black Viper Energy Services
Planning Report



Database: EDM 2003.5 Single User Db
Company: Cimarex Energy Co., Inc.
Project: Eddy Co., New Mexico
Site: McGruder 13 #1 ST
Well: McGruder 13 #1 ST
Wellbore: S-Well #1
Design: Plan #1

Local Co-ordinate Reference: Well McGruder 13 #1 ST
TVD Reference: WELL @ 0.00ft (Original Well Elev)
MD Reference: WELL @ 0.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S ft	+E/-W ft	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL [McG13#1ST] -Rectangle (sides W400.00 H400.00 D0.00)	0.00	0.00	11600.00	1020.00	-150.00	513581.91	423660.19	32° 24' 42.138" N	104° 34' 50.553" W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5450.00	5448.80	48.23	13.13	KOP - Build 2.5/100
5797.07	5793.65	83.67	20.19	EOC - Hold 9.31*

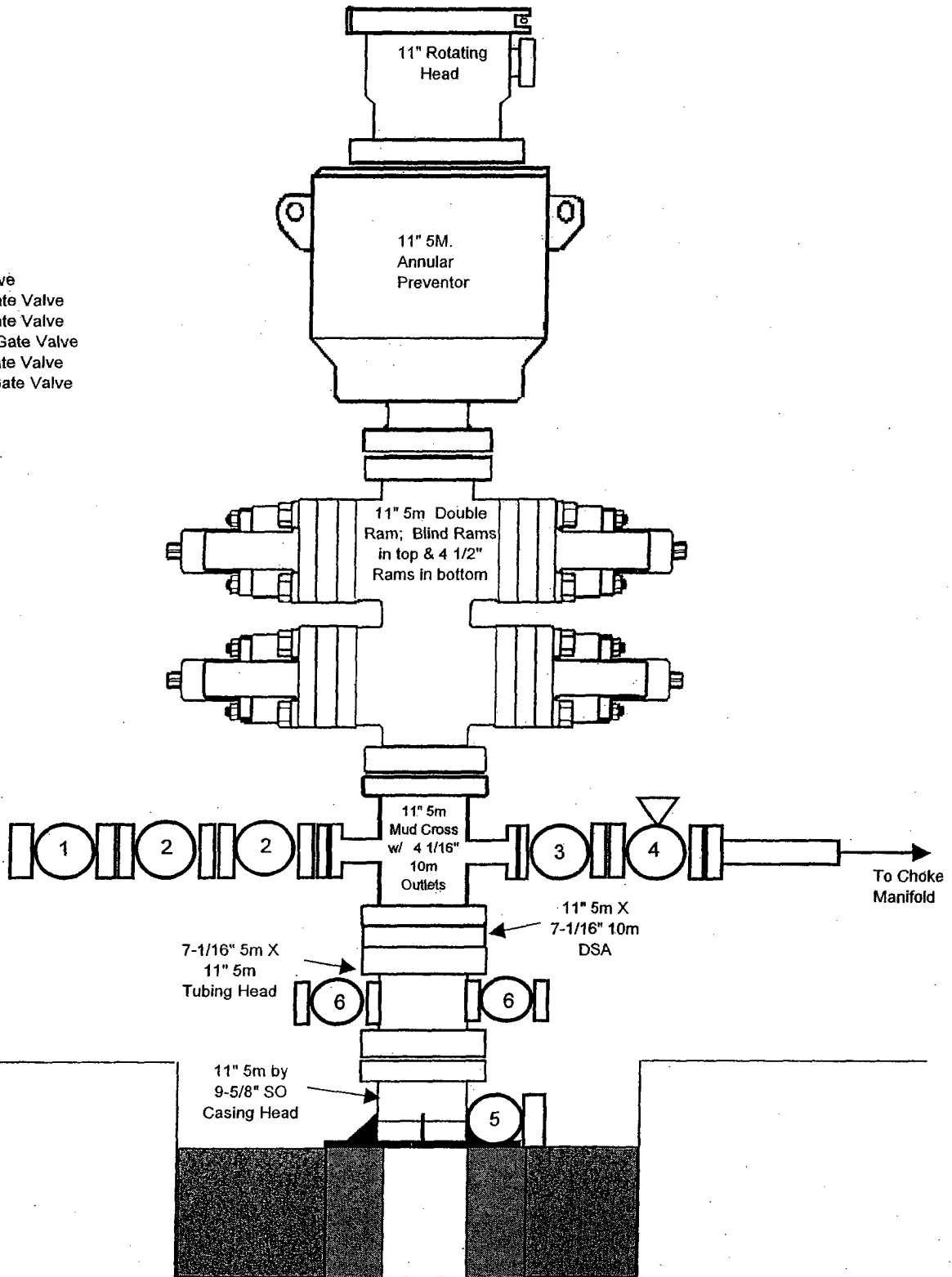
CIMAREX ENERGY CO.

MCGRUDER "13" #1 ST

Proposed Blowout Preventor Stack

Valve Nomenclature

- 1.) 2 1/16" 5m Check Valve
- 2.) 2 1/16" 5m Manual Gate Valve
- 3.) 4 1/16" 5m Manual Gate Valve
- 4.) 4 1/16" 5m Hydraulic Gate Valve
- 5.) 2 1/16" 5m Manual Gate Valve
- 6.) 1 13/16" 5m Manual Gate Valve

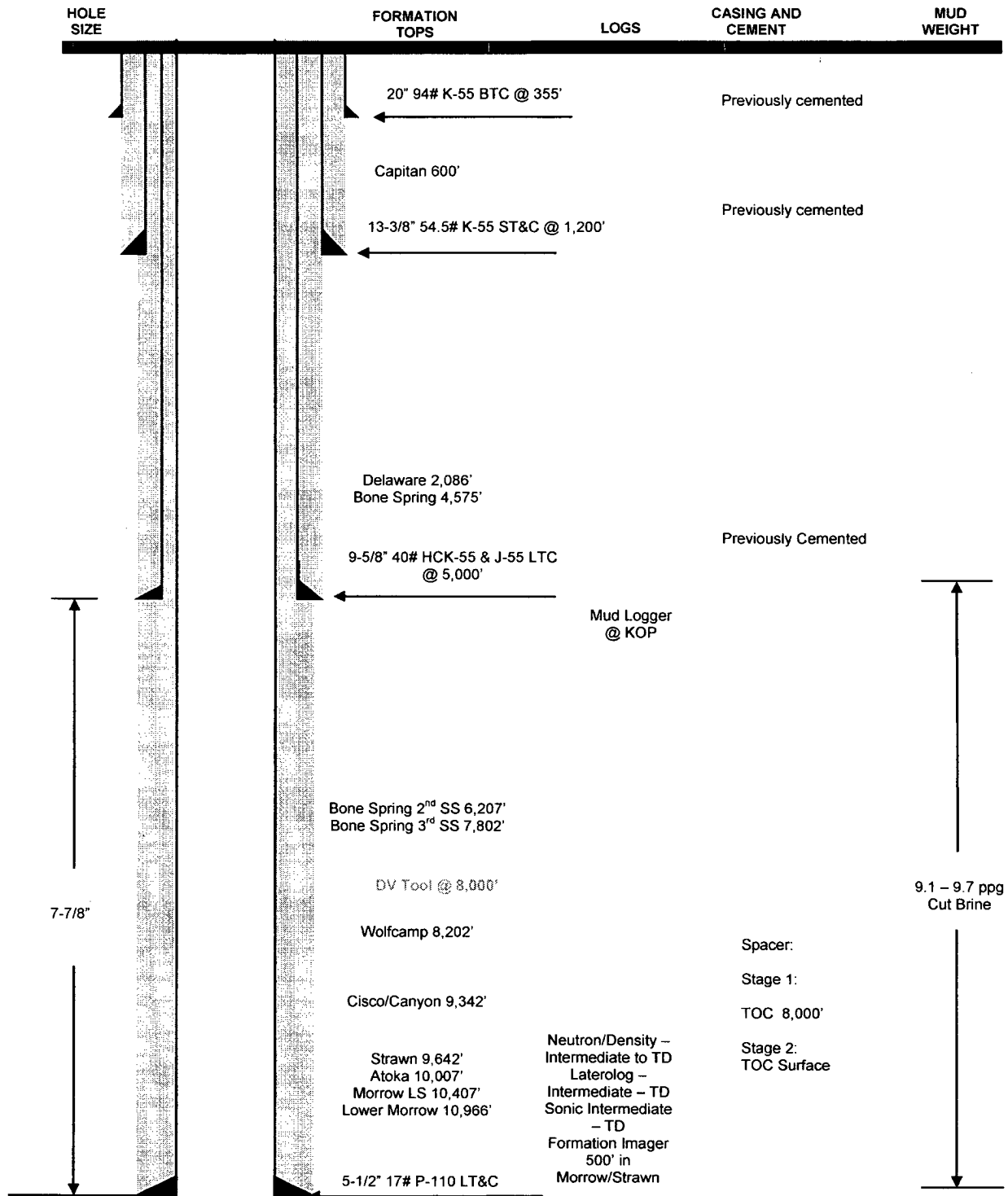




DRILLING PROGNOSIS

WELL : **McGruder 13 #1 ST**
LOCATION : **Sec: 13 22S 25E**
: **Eddy County, New Mexico**
Surf. Loc. : **281' FSL & 1924' FWL**
Target Loc. : **1300' FSL & 1780' FWL**
Email :
Wellhead : **11" 5M x 9-5/8" sow**
: **2-9/16 5K Tree**
Tubing : **11,250' 2-7/8" 6.5# J55**
Superintendent : **Steve Simonton**

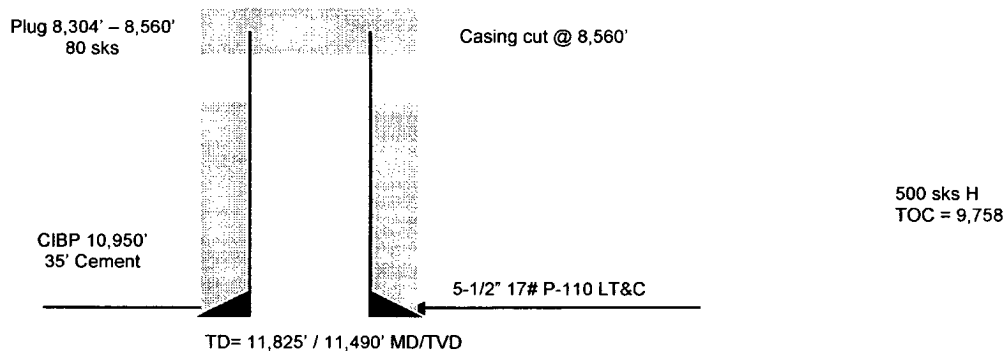
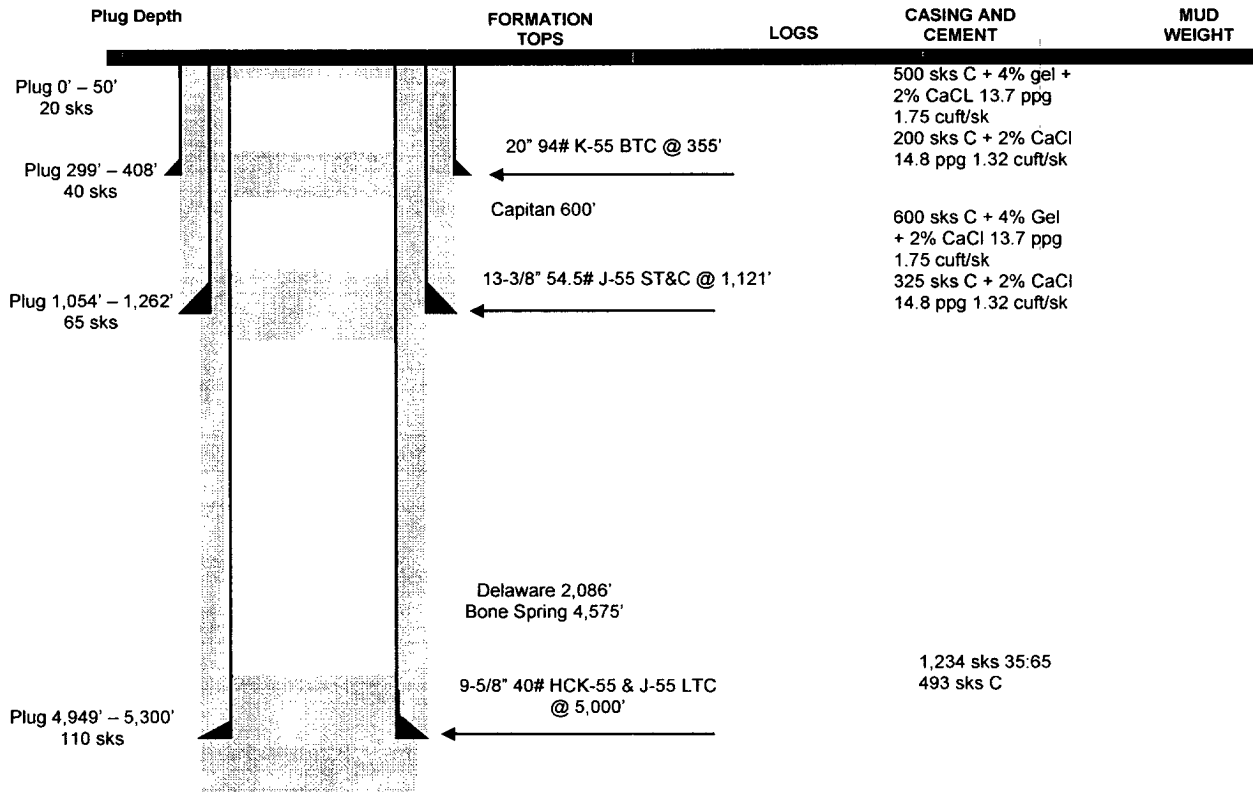
AFE No. : **214262**
FIELD : **Midway**
OBJECTIVE : **Morrow**
MD/TVD : **11,550' / 11,500'**
Cementing : **Schlumberger**
Mud : **Baroid**
Bits : **HTC**
Rig : **Grey Wolf Rig 514**
Offset Well Logs : **Louis Dreyfus 13 Fed #1**
: **Devon Filaree 24N Fed #3**



TD= 11,550' / 11,500' MD/TVD



Current Wellbore Schematic



1. RURT
2. Weld on 9-5/8" SOW
3. RU BOP's
4. Drill Surface plug 0' – 50'
5. Wash/Ream to 299'
6. Drill plug from 299' – 408'
7. Wash/Ream to 1,054'
8. Drill plug from 1,054' – 1,262'
9. Wash/Ream to 4,949'
10. Drill plug 4,949' – 5,300'
11. Wash/Ream 6,000'
12. Circulate hole clean.
13. TOOH
14. TIH with diverter to 6,000' or PBTD
15. Set 500' KOP
 - a. Pump 20 bbls CW100
 - b. Pump 44 bbls (280 sks) Class H + 0.9% D065 + 0.3% D013 @ 18 ppg
 - Volume calculated on caliper + 20%
 - c. Pump 2 bbls FW
 - d. Pump 29 bbls Brine
16. TOOH
17. WOC 18 hrs
18. TIH and dress off plug
19. TOOH
20. P/U Directional Tools
21. Time drill to get off plug
22. Directional drill to target
 - a. Note: Target 1,300' FSL & 1,780' FWL Boundary: 200' N 200' S 200'E (Hardline) 200' W
 - b. Depth 11,500' TVD

DISTRICT I

1825 N. FRANKLIN DR., HOBBS, NM 88249

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brason Rd., Artec, 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 JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-29871	Pool Code	Pool Name Happy Valley Morrow Gas
Property Code	Property Name McGRUDER 13	Well Number 1 ST
OGMP No. 215009	Operator Name CIMAREX ENERGY COMPANY	Elevation 3404'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	13	22-S	25-E		281	SOUTH	1924	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
N	13	22-S	25-E		1300	South	1780	West	Eddy

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

GEODETIC COORDINATES NAD 27 NME Y=503794.1 N X=494502.3 E LAT.=32°25'06.16" N LONG.=104°21'04.11" W DETAIL 3305.4' 3402.6' 600' 3414.2' 3402.4' 1780' 1924' 281' Penetration Point 1188 FSL 1793 FSL SEE DETAIL	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Sharon LaValley</i> Signature Sharon LaValley Printed Name Drilling Tech Title 2-18-05 Date SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveying or under my supervision and that the same are true and correct to the best of my knowledge. <i>GARY EIDSON</i> Signature Professional Surveyor Date Surveyed FEBRUARY 14 2005 12841 05.11.0182 Certificate No. GARY EIDSON 12841
--	---



March 1, 2005

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1301 W. Grand Avenue
Artesia, NM 88210

Attn: Mr. Brian Arrant

Re: McGruder "13" ST #1
Sec. 13-22S-25E
Eddy Co., NM

Dear Mr. Arrant:

I have enclosed a drilling plan for the above mentioned well. This well is on a 320 acre lease, the penetration point should be around 917' N & 131' W of SHL and 1198' FSL & 1793' FWL. From previous information of wells in this area, there is no H2S in the Morrow formation. If you have any further questions, please contact me at (918) 295-1673.

Sincerely,

Sharon LaValley

Attachments.