

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMNM92160

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM120212

8. Well Name and No.
TRINITY 20 FEDERAL COM 1

9. API Well No.
30-015-34521-00-C2

10. Field and Pool, or Exploratory
COTTONWOOD DRAW

11. County or Parish, and State
EDDY COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
CIMAREX ENERGY COMPANY OF CO
Contact: ARICKA EASTERLING
E-Mail: aeasterling@cimarex.com

3a. Address
202 S CHEYENNE AVE SUITE 1000
TULSA, OK 74103.4346

3b. Phone No. (include area code)
Ph: 918-560-7060

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 20 T25S R26E NWSE 1980FSL 1580FEL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Subsurface Commingling
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex respectfully requests approval to Down Hole Commingle the Trinity 20 Fed Com 1. Currently the well is a multi-completed well in the Cottonwood Draw/ Upper Penn and the Sage Draw/Wolfcamp. Cimarex proposes to Down Hole Commingle the well by opening the sliding sleeve in order to produce from both zones.

Royalty, overriding, and working interest owners are the same in each zone. Please see attached documentation.

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 03 2015

RECEIVED

See ATTACHED COA

UD 12/2/15
Accepted for record
NIM/OCD

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #322382 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/12/2015 (16JAS1078SE)

Name (Printed/Typed) ARICKA EASTERLING Title REGULATORY ANALYST

Signature (Electronic Submission) Date 11/03/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

* Approved By EDWARD FERNANDEZ Title PETROLEUM ENGINEER Date 12/01/2015

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Cimarex Energy Co. of Colorado
Conditions of Approval
Down Hole Commingle
Trinity 20 fed Com 1H
API: 30-015-34521
Eddy County, New Mexico

1. Surface disturbance beyond the originally approved pad must have prior approval.
2. Closed loop system required.
3. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
4. Functional H₂S monitoring equipment shall be on location.
5. 2000 (2M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment shall be installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
6. Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity
7. Submit a (Sundry Form 3160-4) Updated completion report with an updated wellbore diagram

EGF 120115

Downhole Commingling Worksheet

Operator: Cimarex Energy Co.
 Lease/Well Name/API Number/Location: NMNM92160 / Trinity 20 Fed com 1 / 30-015-34521 / Sec. 20-25S-26

Date: 11/23/15

Data	Bottom Formation	Middle Formation	Upper Formation	Estimated Combined Production Data
Pool name	Cottonwood Draw; Upper		Sage Draw; Wolfcamp	
Pool Code	Penn 97354		96890	
State Form C-102 with dedicated Acres Provided	Yes		Yes	
Formation Name	Cisco Canyon		Wolfcamp	Cisco Canyon and Wolfcamp
Top and Bottom of Pay Section (Perforated or open-Hole Interval)	10,124'-10,387'		9,114'-9,938'	9,114'-10,387'
Method of production	Flowing		Flowing	Flowing
Bottom Hole Pressure	N/A		N/A	N/A
Reservoir Drive mechanism				
Oil gravity and/or BTU	Oil Gravity: N/A Gas BTU 1147(Dry)/1127 (wet) Gas Gravity-0.6476		Oil API gravity: 46.1 Gas BTU 1112(Dry)/1093 (wet) Gas Gravity-0.6241	* Oil API gravity: 46.1 Gas BTU 1113(Dry)/1095 (wet) Gas Gravity-0.6241
Average Sulfur Content (Wt %)	0		0	* 0
Oil sample Analysis provided	No production		Yes	
Gas Analysis provided	Yes		Yes	
Produce Water Analysis provided	Yes		Yes	
H2S present	No		No	* No
Producing, Shut-In or New Zone	Producing		Producing	N/A
Date and Oil/Gas/Water rates of Last Production (new zones or no production history Operator shall attached production estimated and supporting data)	11/4/2015 0 BOPD 176 MCFD 10.5 BWPD		11/17/2015 5.6 BOPD 958 MCFD 19.4 BWPD	Estimated Rates 5.6 BOPD 1135 MCFD 30 BWPD
Average decline % (provide back up data) Fixed Allocation Percentage	Decline: 25.1% per year Allocation: Oil - 0% Gas -6%		Decline: 35.9% per year Allocation: Oil - 100% Gas -94%	Decline: 25.1% per year based on offset well

Remarks: Cisco Canyon currently produces through tubing, while Wolfcamp currently produces through annulus. Opening the sliding sleeve will allow the Wolfcamp formation to produce through the tubing, which has a smaller hydraulic diameter than the annulus, allowing production from Wolfcamp to increase ($A_1V_1=A_2V_2$).

Operator Signature: *Aricka Easterling*

Date: 11/23/15

Attached Supporting documents

- State Form C-102 with dedicated Acres Provided
- Oil sample Analysis provided (Must be current)
- Gas Analysis provided (Must be current)
- Produce Water Analysis provided (Must be current)
- Any additional supporting data (i.e. offset well production and decline curves etc.)
- *Utilize weighted average.

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 23 2015

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I
1623 N. PUEBLO DR., SANTA FE, NM 87505

DISTRICT II
1501 W. GRAND AVENUE, ARTESIA, NM 87003

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

DISTRICT IV
1820 S. ST. FRANCIS DR., SANTA FE, NM 87505

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

RECEIVED 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 30-015-34521	Pool Code 96890	Pool Name Sagedraw; Wolfcamp
Property Code 35326	Property Name TRINITY 20 FEDERAL COM	Well Number 1
OCRID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3430

Surface Location

UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
J	20	25-S	26-E		1980	SOUTH	1580	EAST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y	P	

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>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=405016.9 N X=506927.7 E</p> <p>LAT.=32°06'48.62" N LONG.=104°18'39.45" W</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.</p> <p><i>Paula Brunson</i> Signature Paula Brunson Printed Name Regulatory Analyst Title January 12, 2015 Date</p>	
<p>Trinity 20 Fed Com #2</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 09, 2005 Date Surveyed JR</p> <p>Signature & Seal of Professional Surveyor <i>Ronald J. Edson</i> 105.11.1757 Certificate No. GARY EDSON 12841 RONALD J. EDSON 3239</p>	
<p>NM-104661</p>		<p>NM-92160</p> <p>Trinity 20 Fed Com #1</p>	



Permian Basin Area Laboratory
2101 Market Street,
Midland, Texas 79703

Upstream Chemicals

REPORT DATE: 9/17/2015

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: CIMAREX ENERGY CO
DISTRICT: NEW MEXICO
AREA/LEASE: EDDY COUNTY
SAMPLE POINT NAME: TRINITY 20 FEDERAL COM 1 R/E WCAMP
SITE TYPE: WELL SITES
SAMPLE POINT DESCRIPTION: SEPARATOR INLET

ACCOUNT REP: MICHAEL OWENS
SAMPLE ID: 201501034173
SAMPLE DATE: 9/9/2015
ANALYSIS DATE: 9/16/2015
ANALYST: FRANCISCO RAMIREZ

CIMAREX ENERGY CO, EDDY COUNTY, TRINITY 20 FEDERAL COM 1 R/E WCAMP

FIELD DATA		ANALYSIS OF SAMPLE											
		ANIONS:		mg/L		meq/L		CATIONS:		mg/L		meq/L	
Initial Temperature (°F):	250	Chloride (Cl ⁻):	80136.4	2260.5	Sodium (Na ⁺):	36462.3	1586.7						
Final Temperature (°F):	80	Sulfate (SO ₄ ²⁻):	216.8	4.5	Potassium (K ⁺):	629.5	16.1						
Initial Pressure (psi):	100	Borate (H ₃ BO ₃):	362.3	5.9	Magnesium (Mg ²⁺):	543.4	44.7						
Final Pressure (psi):	15	Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	3808.7	190.1						
		Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	1291.8	29.5						
pH:		Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	9.1	0.1						
pH at time of sampling:	6.8	Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	54.7	2.0						
		Phosphate (PO ₄ ³⁻):	ND		Manganese (Mn ²⁺):	1.5	0.1						
		Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND	ND						
					Zinc (Zn ²⁺):	3.1	0.1						
ALKALINITY BY TITRATION:		mg/L	meq/L										
Bicarbonate (HCO ₃ ⁻):	183.0		3.0		Aluminum (Al ³⁺):	ND	ND						
Carbonate (CO ₃ ²⁻):	ND				Chromium (Cr ³⁺):	ND	ND						
Hydroxide (OH ⁻):	ND				Cobalt (Co ²⁺):	ND	ND						
					Copper (Cu ²⁺):	ND	ND						
					Molybdenum (Mo ²⁺):	ND	ND						
					Nickel (Ni ²⁺):	ND	ND						
					Tin (Sn ²⁺):	ND	ND						
					Titanium (Ti ²⁺):	ND	ND						
					Vanadium (V ²⁺):	ND	ND						
					Zirconium (Zr ²⁺):	ND	ND						
aqueous CO ₂ (ppm):	30.0	Formic Acid:	ND		Total Hardness:	13240	N/A						
aqueous H ₂ S (ppm):	0.0	Acetic Acid:	ND										
aqueous O ₂ (ppb):	ND	Propionic Acid:	ND										
		Butyric Acid:	ND										
		Valeric Acid:	ND										
Calculated TDS (mg/L):	123703												
Density/Specific Gravity (g/cm ³):	1.0766												
Measured Specific Gravity	1.0858												
Conductivity (mmhos):	ND												
Resistivity:	ND												
MCF/D:	No Data												
BOPD:	No Data												
BWPD:	No Data	Anion/Cation Ratio:	1.22										

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

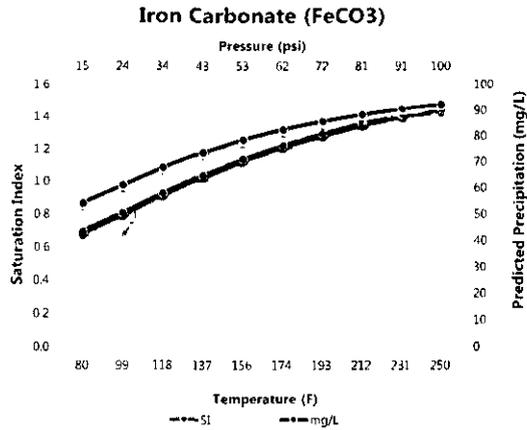
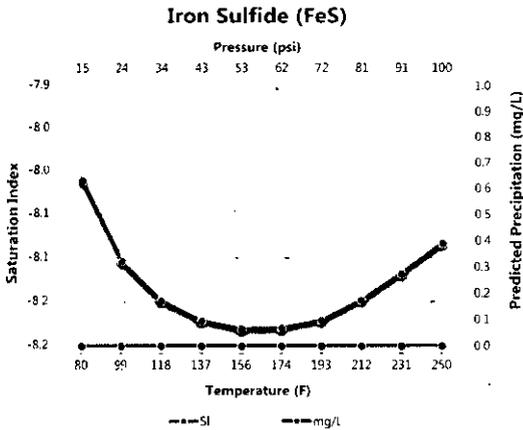
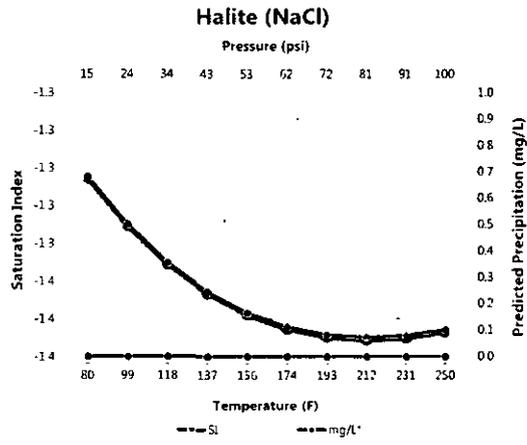
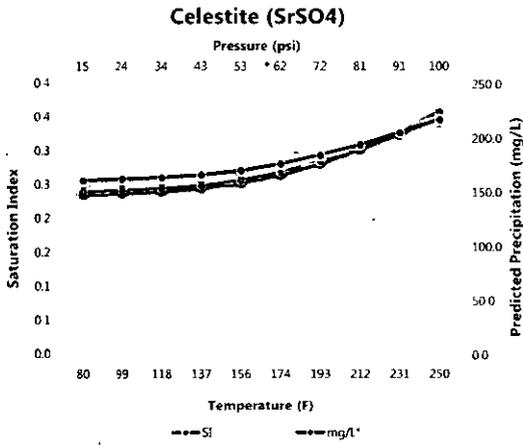
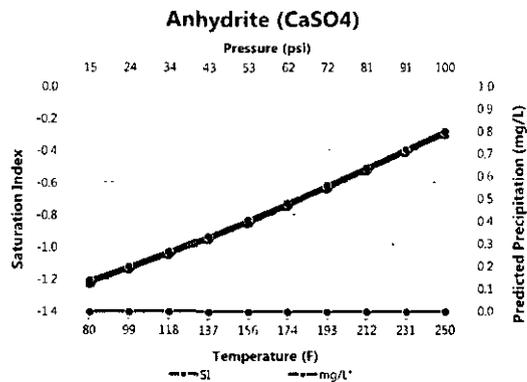
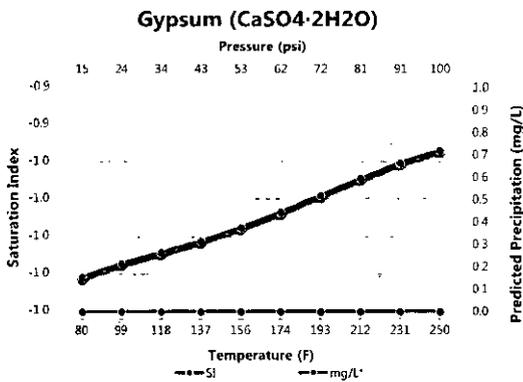
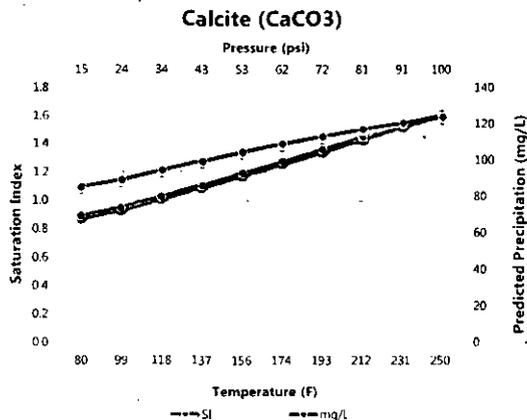
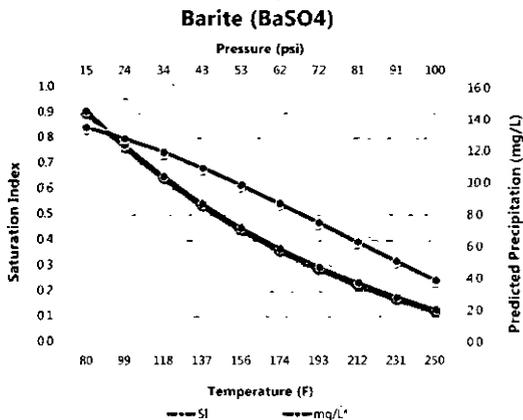
Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.91	4.730	0.89	29.852	-1.02	0.000	-1.20	0.000
99°F	24 psi	0.77	4.479	0.95	31.216	-1.01	0.000	-1.12	0.000
118°F	34 psi	0.65	4.180	1.03	33.001	-1.01	0.000	-1.03	0.000
137°F	43 psi	0.54	3.837	1.11	34.791	-1.00	0.000	-0.93	0.000
156°F	53 psi	0.45	3.459	1.19	36.472	-0.99	0.000	-0.83	0.000
174°F	62 psi	0.37	3.055	1.27	38.017	-0.99	0.000	-0.73	0.000
193°F	72 psi	0.30	2.637	1.36	39.424	-0.98	0.000	-0.62	0.000
212°F	81 psi	0.23	2.213	1.44	40.792	-0.97	0.000	-0.51	0.000
231°F	91 psi	0.18	1.789	1.53	42.055	-0.96	0.000	-0.40	0.000
250°F	100 psi	0.13	1.366	1.62	43.186	-0.95	0.000	-0.29	0.000

Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.24	56.730	-1.32	0.000	-8.01	0.000	0.70	18.899
99°F	24 psi	0.24	57.154	-1.33	0.000	-8.10	0.000	0.81	21.260
118°F	34 psi	0.25	57.619	-1.35	0.000	-8.15	0.000	0.93	23.642
137°F	43 psi	0.25	58.455	-1.35	0.000	-8.17	0.000	1.04	25.708
156°F	53 psi	0.26	59.873	-1.36	0.000	-8.18	0.000	1.13	27.419
174°F	62 psi	0.27	61.974	-1.36	0.000	-8.18	0.000	1.22	28.803
193°F	72 psi	0.29	64.763	-1.36	0.000	-8.17	0.000	1.29	29.907
212°F	81 psi	0.31	68.157	-1.36	0.000	-8.15	0.000	1.36	30.856
231°F	91 psi	0.33	72.016	-1.36	0.000	-8.12	0.000	1.41	31.622
250°F	100 psi	0.36	76.161	-1.36	0.000	-8.08	0.000	1.45	32.205

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered
 Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales
 Note 3: Saturation Index predictions on this sheet use pH and alkalinity; HCO₃⁻ is not included in the calculations



Comments:





Permian Basin Area Laboratory
2101 Market Street,
Midland, Texas 79703

Upstream Chemicals

REPORT DATE: 9/17/2015

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER:	CIMAREX ENERGY CO	ACCOUNT REP:	MICHAEL OWENS
DISTRICT:	NEW MEXICO	SAMPLE ID:	201501034172
AREA/LEASE:	EDDY COUNTY	SAMPLE DATE:	9/9/2015
SAMPLE POINT NAME:	TRINITY 20 FEDERAL COM 1 R/E CISCO	ANALYSIS DATE:	9/16/2015
SITE TYPE:	WELL SITES	ANALYST:	FRANCISCO RAMIREZ
SAMPLE POINT DESCRIPTION:	SEPARATOR INLET		

CIMAREX ENERGY CO, EDDY COUNTY, TRINITY 20 FEDERAL COM 1 R/E CISCO

FIELD DATA		ANALYSIS OF SAMPLE				
		ANIONS:		CATIONS:		
		mg/L	meq/L	mg/L	meq/L	
Initial Temperature (°F):	250	Chloride (Cl):	71612.5	2020.1 Sodium (Na ⁺):	29354.6	1277.4
Final Temperature (°F):	80	Sulfate (SO ₄ ²⁻):	91.3	1.9 Potassium (K ⁺):	226.0	5.8
Initial Pressure (psi):	100	Borate (H ₃ BO ₃):	235.9	3.8 Magnesium (Mg ²⁺):	678.1	55.8
Final Pressure (psi):	15	Fluoride (F ⁻):	ND	Calcium (Ca ²⁺):	5605.7	279.7
		Bromide (Br ⁻):	ND	Strontium (Sr ²⁺):	2263.0	51.7
pH:		Nitrite (NO ₂ ⁻):	ND	Barium (Ba ²⁺):	110.9	1.6
pH at time of sampling:	6.9	Nitrate (NO ₃ ⁻):	ND	Iron (Fe ²⁺):	45.1	1.6
		Phosphate (PO ₄ ³⁻):	ND	Manganese (Mn ²⁺):	2.2	0.1
		Silica (SiO ₂):	ND	Lead (Pb ²⁺):	ND	ND
				Zinc (Zn ²⁺):	0.0	0.0
ALKALINITY BY TITRATION:		mg/L	meq/L			
Bicarbonate (HCO ₃ ⁻):	170.8		2.8	Aluminum (Al ³⁺):		ND
Carbonate (CO ₃ ²⁻):	ND			Chromium (Cr ³⁺):		ND
Hydroxide (OH ⁻):	ND			Cobalt (Co ²⁺):		ND
		ORGANIC ACIDS:		Copper (Cu ²⁺):		ND
aqueous CO ₂ (ppm):	20.0	Formic Acid:	ND	Molybdenum (Mo ²⁺):		ND
aqueous H ₂ S (ppm):	0.0	Acetic Acid:	ND	Nickel (Ni ²⁺):		ND
aqueous O ₂ (ppb):	ND	Propionic Acid:	ND	Tin (Sn ²⁺):		ND
		Butyric Acid:	ND	Titanium (Ti ²⁺):		ND
Calculated TDS (mg/L):	110396	Valeric Acid:	ND	Vanadium (V ²⁺):		ND
Density/Specific Gravity (g/cm ³):	1.0699			Zirconium (Zr ²⁺):		ND
Measured Specific Gravity	1.0789			Total Hardness:	19469	N/A
Conductivity (mmhos):	ND					
Resistivity:	ND					
MCF/D:	No Data					
BOPD:	No Data					
BWPD:	No Data	Anion/Cation Ratio:	1.21			ND = Not Determined

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FURTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	1.62	59.331	1.09	31.465	-1.25	0.000	-1.44	0.000
99°F	24 psi	1.49	57.680	1.15	32.507	-1.23	0.000	-1.35	0.000
118°F	34 psi	1.37	55.971	1.22	33.915	-1.22	0.000	-1.25	0.000
137°F	43 psi	1.27	54.257	1.31	35.343	-1.21	0.000	-1.15	0.000
156°F	53 psi	1.18	52.588	1.39	36.691	-1.20	0.000	-1.04	0.000
174°F	62 psi	1.11	51.000	1.48	37.932	-1.18	0.000	-0.93	0.000
193°F	72 psi	1.04	49.517	1.56	39.062	-1.17	0.000	-0.82	0.000
212°F	81 psi	0.99	48.148	1.65	40.155	-1.15	0.000	-0.70	0.000
231°F	91 psi	0.94	46.888	1.74	41.159	-1.13	0.000	-0.58	0.000
250°F	100 psi	0.90	45.720	1.83	42.052	-1.12	0.000	-0.46	0.000

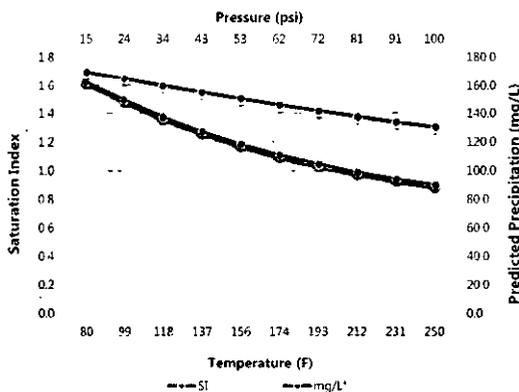
Conditions		Celestite (SrSO ₄)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate (FeCO ₃)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
80°F	15 psi	0.09	11.354	-1.48	0.000	-8.01	0.000	0.66	15.689
99°F	24 psi	0.10	12.076	-1.49	0.000	-8.11	0.000	0.77	17.748
118°F	34 psi	0.11	12.972	-1.51	0.000	-8.16	0.000	0.89	19.843
137°F	43 psi	0.12	14.181	-1.51	0.000	-8.18	0.000	1.00	21.667
156°F	53 psi	0.13	15.767	-1.52	0.000	-8.19	0.000	1.10	23.177
174°F	62 psi	0.15	17.736	-1.52	0.000	-8.19	0.000	1.19	24.398
193°F	72 psi	0.18	20.039	-1.53	0.000	-8.18	0.000	1.26	25.370
212°F	81 psi	0.21	22.590	-1.53	0.000	-8.15	0.000	1.33	26.202
231°F	91 psi	0.24	25.286	-1.53	0.000	-8.12	0.000	1.39	26.869
250°F	100 psi	0.27	28.014	-1.52	0.000	-8.09	0.000	1.43	27.375

Note 1. When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered
 Note 2. Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales
 Note 3. Saturation Index predictions on this sheet use pH and alkalinity. NCO₃ is not included in the calculations

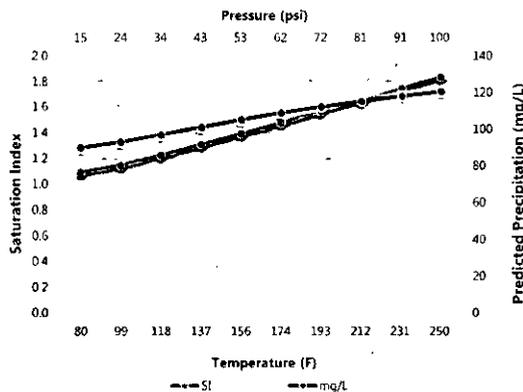


Comments:

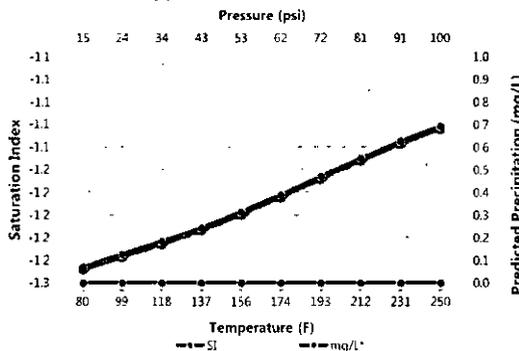
Barite (BaSO4)



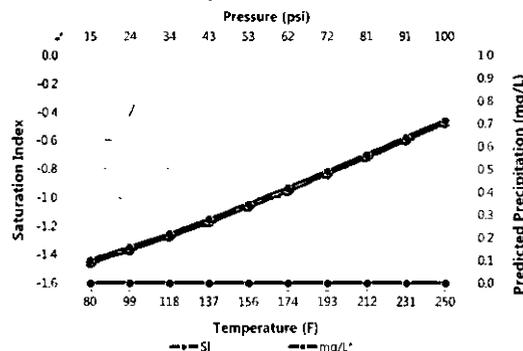
Calcite (CaCO3)



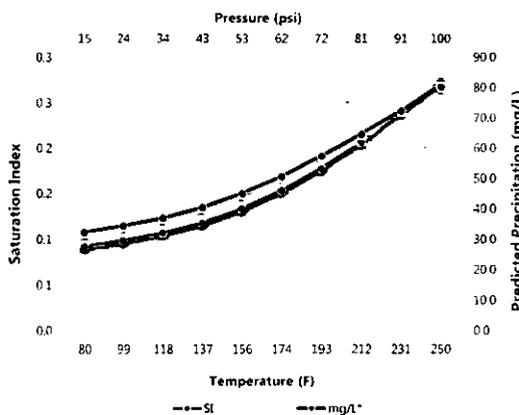
Gypsum (CaSO4·2H2O)



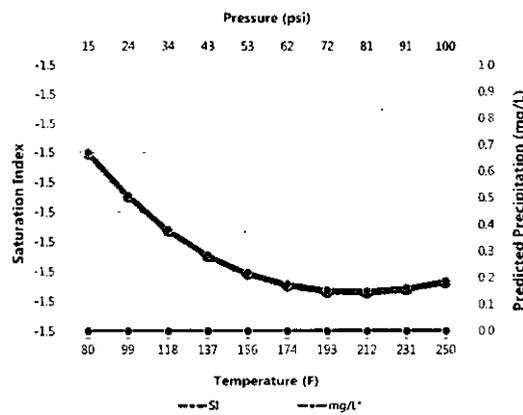
Anhydrite (CaSO4)



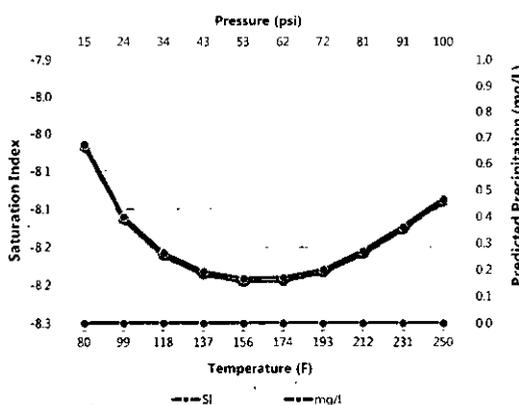
Celestite (SrSO4)



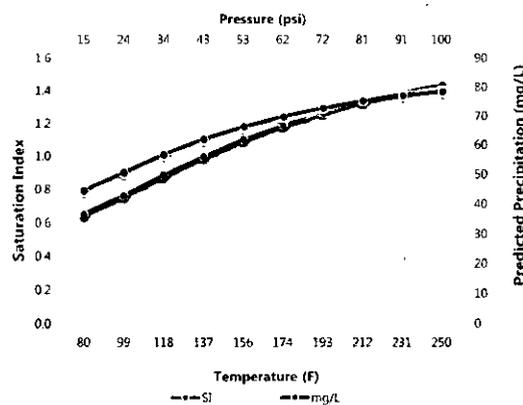
Halite (NaCl)



Iron Sulfide (FeS)



Iron Carbonate (FeCO3)





PERMIAN BASIN AREA LABORATORY
2101 MARKET STREET,
MIDLAND, TEXAS 79703

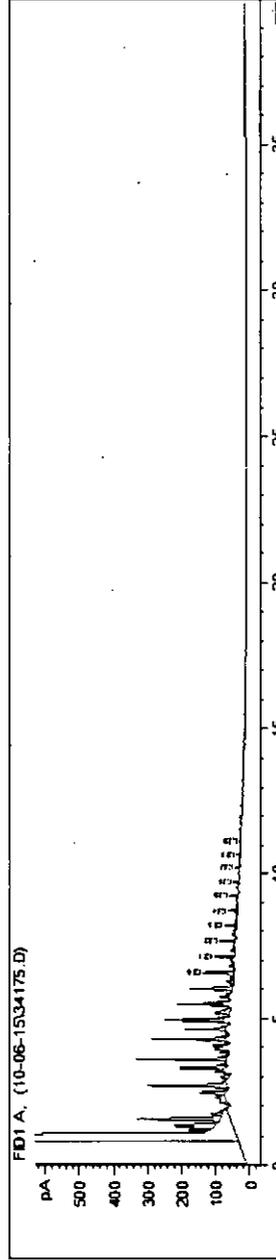
REPORT DATE: 10/9/2015

OIL ANALYSIS REPORT

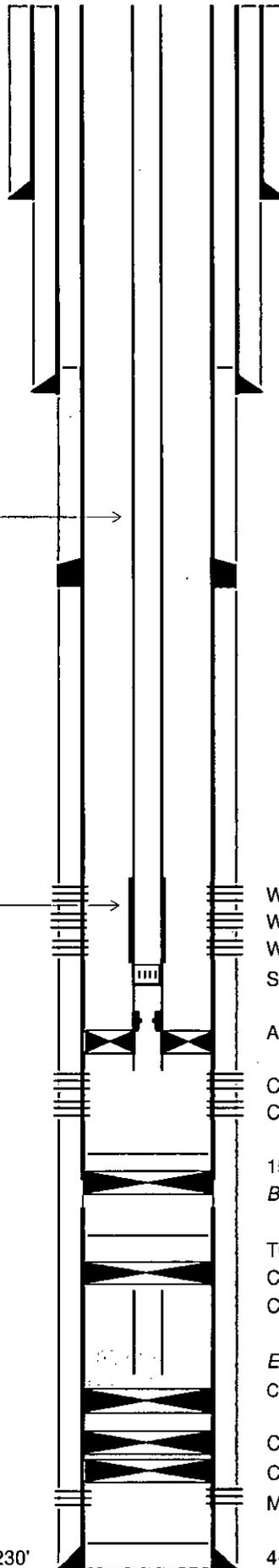
CUSTOMER: CIMAREX ENERGY CO DISTRICT: NEW MEXICO
LEASE/AREA: EDDY COUNTY ACCOUNT REP: MICHAEL OWENS
SAMPLE POINT NAME: TRINITY 20 FEDERAL COM 1 R/E WCAMP SAMPLE ID: 201501034175
SAMPLE POINT DESCRIPTOR: SEPARATOR INLET SAMPLE DATE: 9/9/2015
SITE TYPE: WELL SITES

CLOUD POINT: <68
WEIGHT PERCENT PARAFFIN (BY GC)*: 0.73%
WEIGHT PERCENT ASPHALTENES: 0.06%
WEIGHT PERCENT OILY CONSTITUENTS: 99.20%
WEIGHT PERCENT INSOLUBLE IN XYLENE: 0.01%
LARGEST C20+

*WEIGHT PERCENT PARAFFIN AND PEAK CARBON NUMBER INCLUDES ONLY N-ALKANES (STRAIGHT CHAIN HYDROCARBONS) GREATER THAN OR EQUAL TO C20H42.



KB : 19' above GL



13-3/8"; 48# H-40 csg @ 310'
cmtd w/ 340 sx, cmt circ

TOC @ 2620' by CBL
9-5/8", 40# J-55 csg @ 2665'
cmtd w/ 830 sx, cmt circ

2-3/8" 4.7# L80 Tbg

DV Tool @ 7893'; cmtd w/ 1135 sx

840' 2-3/8" blast joints

Wolfcamp perms (9114' - 9469')
Wolfcamp perms (9516' - 9714')
Wolfcamp perms (9767' - 9938')
Sliding sleeve 2 jts above O/O tool

Arrowset 1X pkr @ ± 10,010' & O/O tool w/ "X" nipple

Cisco Canyon perms (10124' - 10241')
Cisco Canyon perms (10263' - 10387')

15K CBP @ 10,735' w/ cmt on top (TOC @ 10,702')
Bad collars identified @ 10,756' & 10,801'

TOC @ 11,027'
CIBP @ 11,110', pumped 55 sx Class H on top (~770')
Chemical cut tbg @ 11,115'

EOT @ 11,381', tbg stuck (possibly in cmt?)
CIBP @ 11,451'; 40 sx cmt on top, no TOC. cmt in btm 50 jts tbg

CIBP @ 11,509'; dumped 2 sx cmt on top, none tagged
CIBP @ 11,525'; dumped 3 sx cmt on top, none tagged
Morrow perms (11551' - 11577')

PBTD @ 12230'
TD @ 12280'

4-1/2" 11.6# P-110 @ 12280'
cmtd w/ 1115 sx

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



Administrative Order DHC-4754

Order Date: April 17, 2015

Application Reference Number: pMAM1510650990

Cimarex Energy Co. of Colorado
600 North Marienfeld Street, Suite 600
Midland, Tx. 79701

Attention: Ms. Aricka Easterling

Trinity 20 Federal Com. Well No. 1
API No. 30-015-34521
Unit J, Section 20, Township 25 South, Range 26 East, NMPM
Eddy County, New Mexico

Pool	SAGE DRAW; WOLFCAMP, EAST (G)	Gas (96890)
Names:	COTTONWOOD DRAW; UPPER PENN (G)	Gas (97354)

Reference is made to your recent application for an exception to Division Rule 19.15.12.9A. NMAC of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

It appears that the subject well qualifies for approval for such exception pursuant to the provisions of Division Rule 19.15.12.11A. NMAC, and since reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with Division Rule 19.15.12.11A.(6) NMAC, the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

It is our understanding that the allocation of production to each zone is based on previous data obtained by separately metering the gas from each zone, and monthly testing of the oil zones.

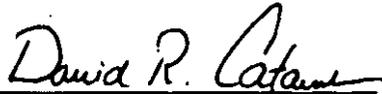
Assignment of allowable and allocation of production from the well shall be as follows:

SAGE DRAW; WOLFCAMP, EAST (G) POOL	Pct. Oil: 100	Pct. Gas: 94
COTTONWOOD DRAW; UPPER PENN (G) POOL	Pct. Oil: 0	Pct. Oil: 6

It is also understood that notice of this application, pursuant to Division Rule 19.15.4.12A.(6), is not required since the interest ownership between the subject pools to be commingled are common throughout.

REMARKS: This Order is subject to like approval from the Bureau of Land Management.

Pursuant to Division Rule 19.15.12.11B. NMAC, the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.



DAVID R. CATANACH
Director

DRC/mam

cc: New Mexico Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad

Cimarex Energy Co.

202 S Cheyenne Ave

Suite 1000

Tulsa, Oklahoma 74103-4346

Phone 918.585.1100

Fax 918.749.8059



April 15, 2015

New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: Trinity 20 Federal Com 1H
20-25S-26E
30-015-34521
C-107-A Sage Draw/Wolfcamp and Cottonwood Draw/Upper Penn

Sir or Madam,

Enclosed is an original form C-107A (Application for Downhole Commingling) for the well mentioned above.

Currently the well is a multi-completed well in the Cottonwood draw/Upper Penn and the Sage Draw/Wolfcamp. Cimarex proposes to down hole commingle the well by opening the sliding sleeve in order to produce from both zones.

Royalty, overriding, and working interest owner are the same in each zone.

If you have any questions or need further information, please contact me at 918-506-7060

Sincerely,

A handwritten signature in black ink that reads "Aricka Easterling". The signature is written in a cursive, flowing style.

Aricka Easterling
Regulatory Analyst

Cimarex Energy Co.
600 N. Marienfeld St.
Suite 600
Midland, TX 79701
MAIN 432.571.7800



April 1, 2015

Mr. Michael A. McMillan
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Ownership Verification
Trinity 20 Federal Com 1
API No. 30-015-34521
1980' FSL x 1580 FEL
Sec. 20-T25S-R26E
Eddy County, New Mexico

Dear Mr. McMillan:

Per the review of our records, it has been determined that there is common ownership for the Cisco Canyon and Wolfcamp zones. Please feel free to contact me if there are any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Nash Dowdle, Jr.", written in a cursive style.

Nash J. Dowdle, Jr.
Petroleum Landman
Tel. 432-571-7857 – Off.
Tel. 432 – 571-7840 - FAX
ndowdle@cimarex.com

**NM OIL CONSERVATION
ARTESIA DISTRICT**

MAR 23 2015

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I
1620 N. FRANCIS DR., SUITE 200, ALBUQUERQUE, NM 87104

DISTRICT II
1991 N. CAMINO ARROYO, ARTESIA, NM 87003

DISTRICT III
1000 Ego Brasco Rd., Artesia, NM 87410

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

**OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505**

RECEIVED

Form C-102
Revised JUNE 10, 2009
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-34521	Pool Code 96890	Pool Name Sagedraw; Wolfcamp
Property Code 35326	Property Name TRINITY 20 FEDERAL COM	Well Number 1
OCRID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3430'

Surface Location

UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
J	20	25-S	26-E		1980	SOUTH	1580	EAST	EDDY

Bottom Hole Location If Different From Surface

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

Dedicated Acres 320	Joint or InRII Y	Consolidation Code P	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>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=405016.9 N X=506927.7 E</p> <p>LAT.=32°06'48.62" N LONG.=104°18'39.45" W</p>		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Paula Brunson</i> Signature Paula Brunson Printed Name Regulatory Analyst Title January 12, 2015 Date</p>	
<p>Trinity 20 Fed Com #2</p> <p>660'</p> <p>1980'</p> <p>NM-104661</p>		<p>3440.7'</p> <p>600'</p> <p>3436.9'</p> <p>1580'</p> <p>3422.0'</p> <p>3421.1'</p> <p>1980'</p> <p>NM-92160</p> <p>Trinity 20 Fed Com #1</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 09, 2005</p> <p>Date Surveyed: JR</p> <p>Signature & Seal of Professional Surveyor <i>Ronald J. Johnson</i> 105.11.1757 Certificate No. GARY EIDSON 12841 RONALD J. JOHNSON 3239</p>	

**NM OIL CONSERVATION
ARTESIA DISTRICT**

MAR 23 2015

State of New Mexico

Energy, Minerals and Natural Resources Department

RECEIVED

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Issues - 4 Copies

Fee Issues - 3 Copies

DISTRICT I
1420 N. FRONTS DR., SUITE 100, ALBUQUERQUE, NM 87102

DISTRICT II
1301 N. CHASE AVENUE, ARTESIA, NM 87010

DISTRICT III
1000 N. BRASSER BL., ALBUQUERQUE, NM 87110

DISTRICT IV
1200 S. ST. FRANCIS DR., SANTA FE, NM 87505

**OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505**

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

APN Number 30-015-34521	Pool Code 97354	Pool Name Cottonwood Draw, Upper Penn (Gas)
Property Code 35326	Property Name TRINITY 20 FEDERAL COM	Well Number 1
OGRID No. 162683	Operator Name Cimarex Energy Co. of Colorado	Elevation 3430'

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	20	25-S	26-E		1980	SOUTH	1580	EAST	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 Acre 320	Joint or Infill Y	Consolidation Code P	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

<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=405016.9 N X=506927.7 E</p> <p>LAT.= 32°06'48.62" N LONG.= 104°18'39.45" W</p>		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Paula Brunson</i> Signature Paula Brunson Printed Name Regulatory Analyst Title January 12, 2015 Date</p>	
<p>Trinity 20 Fed Com #2</p> <p>660'</p> <p>1980'</p> <p>NM-104661</p>		<p>3440.7'</p> <p>600'</p> <p>3434.0'</p> <p>1580'</p> <p>3422.0'</p> <p>3421.1'</p> <p>1980'</p> <p>NM-92160</p> <p>Trinity 20 Fed Com #1</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 09, 2005 Date Surveyed JR</p> <p>Signature of (Seal) Professional Surveyor <i>Ronald J. Johnson</i> 105.11.1757</p> <p>Certificate No. CARY, JUDSON 18941 RONALD J. JUDSON 3239</p>	

District I
1625 N French Drive, Hobbs, NM 88240

District II
811 S First St., 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 Department

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

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
 Single Well
 Establish Pre-Approved Pools
EXISTING WELLSBORE
 Yes No

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Cimarex Energy Co. Address 600 N. Marienfeld St., Suite 600, Midland, TX 79701

Lease Trinity 20 Federal Com Well No. 1980' FSL & 1580' FEL (Unit J) Sec. 20, T-25-S, R-26-E County Eddy

OGRID No. 162683 Property Code 35326 API No. 30-015-34521 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Sage Draw, Wolfcamp		Cottonwood Draw, Upper Penn (Gas)
Pool Code	96890		97354
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	9114'-9938' (Perforated)		10124'-10387' (Perforated)
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	N/A		N/A
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Gas BTU/cuft. - 1112(dry)/1093(wet) Gas gravity - 0.6241		Gas BTU/cuft. - 1147(dry)/1127(wet) Gas gravity - 0.6476
Producing, Shut-In or New Zone	Producing		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicants shall be required to attach production estimates and supporting data.)	Date: 3/29/2015 Rates: 17 BOPD/2254 MCFD/22 BWPD	Date: Rates:	Date: 3/5/2015 Rates: 0 BOPD/139 MCFD/31 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 100 % Gas 94 %	Oil % Gas %	Oil 0 % Gas 6 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes No
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes No

Are all produced fluids from all commingled zones compatible with each other? Yes No

Will commingling decrease the value of production? Yes No

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes No

NMOCD Reference Case No. applicable to this well: _____

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE Aricka Easterling TITLE Regulatory Analyst DATE 4/2/15

TYPE OR PRINT NAME Aricka Easterling TELEPHONE NO. (918) 560-7060

E-MAIL ADDRESS aeasterling@cimarex.com

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 86220-6292

2. Article Number
(Transfer from service label)

7014 2120 0004 2741 4052

PS Form 3811, July 2013

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

-
- Agent
-
-
- Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

-
- Certified Mail®
-
- Priority Mail Express™
-
-
- Registered
-
- Return Receipt for Merchandise
-
-
- Insured Mail
-
- Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

McMillan, Michael, EMNRD

From: Aricka Easterling <AEasterling@cimarex.com>
Sent: Thursday, April 16, 2015 2:35 PM
To: McMillan, Michael, EMNRD
Subject: RE: Trinity 20 Federal Com Well No. 1H DHC

Mr. McMillian,

The oil is produced into common tanks and tested monthly. The gas has individual sales meters for each zone.

Thank you

Aricka

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Thursday, April 16, 2015 3:14 PM
To: Aricka Easterling
Subject: RE: Trinity 20 Federal Com Well No. 1H DHC

Ms. Easterling:

How did you get 94/6 gas % for the Wolfcamp and Upper Penn? Same for the oil

From: Aricka Easterling [<mailto:AEasterling@cimarex.com>]
Sent: Thursday, April 16, 2015 2:12 PM
To: McMillan, Michael, EMNRD
Subject: RE: Trinity 20 Federal Com Well No. 1H DHC

It's a dual completion.

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Thursday, April 16, 2015 3:08 PM
To: Aricka Easterling
Subject: Trinity 20 Federal Com Well No. 1H DHC

Ms. Easterling:

I received your DHC application for the Trinity 20 Federal Com Well No. 1H today.

Can you tell me how you got the percentages for the two zones in the well?

Is it based on well testing? Individual production?

Thank You

Michael A. McMillan

Engineering and Geological Services Bureau, Oil Conservation Division

1220 South St. Francis Dr., Santa Fe NM 87505

O: 505.476.3448 F. 505.476.3462

Michael.mcmillan@state.nm.us

Cimarex Energy Co. of Colorado
Conditions of Approval
Down Hole Commingle
Trinity 20 fed Com 1H
API: 30-015-34521
Eddy County, New Mexico

1. Surface disturbance beyond the originally approved pad must have prior approval.
2. Closed loop system required.
3. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations, or any other crew-intensive operations.
4. Functional H₂S monitoring equipment shall be on location.
5. 2000 (2M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment shall be installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
6. Submit a (Sundry Form 3160-5) subsequent report (daily reports) describing all wellbore activity
7. Submit a (Sundry Form 3160-4) Updated completion report with an updated wellbore diagram

EGF 120115