

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

IAN 09 2015

RECEIVED ☐ AMENDED REPORT

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

¹ Operator Name and Address RKI EXPLORATION & PRODUCTION 210 PARK AVE, STE. 900, OKC, OK 73102		² OGRID Number 246289
		³ API Number 30-015-31935
⁴ Property Code 196500 314201	⁵ Property Name SARAGOSSA 17 STATE	⁶ Well No. 3H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	17	23 S	26 E		1980	SOUTH	660	WEST	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	17	23 S	26 E		330	SOUTH	990	WEST	EDDY

9. Pool Information

Pool Name BONE SPRING	Pool Code 98056
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Additional Well Information

¹¹ Work Type HORZ RECOMPLETION	¹² Well Type O	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type STATE	¹⁵ Ground Level Elevation 3394'
¹⁶ Multiple NO	¹⁷ Proposed Depth 11,766' MD	¹⁸ Formation BONE SPRING, 2ND SS	¹⁹ Contractor NABORS	²⁰ Spud Date 08/20/2001
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
WHIPSTOCK	8-3/4'	7"	26#	5,782'		
BRIDGE PLUG	8-3/4"	7"	CIBP	5,800'		
BRIDGE PLUG	6 1/8"	4-1/2"	CIBP	11,500'	25 SKS	TOP OF PLUG

Casing/Cement Program: Additional Comments

SPOT 60 SKS CLASS H 8,600'-8,4050'/SPOT 60 SKS CLASS H 9,800'-9,650'/PUMP 25 SKS CLASS J 11,030'-10,900'
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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
BOP RAM	15K #	15K #	

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 I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒ , if applicable. Signature: <i>Heather Brehm</i> Printed name: HEATHER BREHM Title: REGULATORY ANALYST E-mail Address: hbrehm@rkixp.com Date: 01/02/2015 Phone: 405-996-5769		OIL CONSERVATION DIVISION Approved By: <i>[Signature]</i> Title: <i>Dist. Eng. Supervisor</i> Approved Date: 2/18/15 Expiration Date: Conditions of Approval Attached
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NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 09 2015

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-31935	Pool Code 98056	Pool Name WC-015 G-04 523615D, BONE SPRING
Property Code 198500 314201	Property Name SARAGOSSA 17 STATE COM	Well Number 3H
OGRID No. 246289	Operator Name RKI EXPLORATION & PRODUCTION	Elevation 3394'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	17	23 S	26 E		1980	SOUTH	660	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
M	17	23 S	26 E		330	SOUTH	990	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
80.0			

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.

NW COR SEC 17 NMSP-E (NAD 27) N (Y) = 477027.9' E (X) = 502945.1' LAT = 32.3114658°N LONG = 104.3238005°W	NE COR SEC 17 NMSP-E (NAD 27) N (Y) = 477040.8' E (X) = 508308.0' LAT = 32.3114987°N LONG = 104.3064416°W	OPERATOR CERTIFICATION I hereby certify that 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 to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Heather Brehm</i> 12/08/2014 Signature Date Heather Brehm Print Name hbrehm@rkixp.com E-mail Address
SARAGOSSA 17 STATE COM-3 SHL NMSP-E (NAD 83) N (Y) = 473714.7' E (X) = 544782.05' LAT = 32° 18' 08.33"N. LONG = 104° 19' 19.86"W.		
SURVEYORS 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. December 3, 2014 Date of Survey Signature and Seal of Professional Surveyor		
SARAGOSSA 17 STATE COM-3 BHL NMSP-E (NAD 83) N (Y) = 472065.3' E (X) = 545109.8' LAT = 32° 17' 52.01"N. LONG = 104° 19' 16.05"W.	SW COR SEC 17 NMSP-E (NAD 27) N (Y) = 471675.4' E (X) = 502937.7' LAT = 32.2967519°N LONG = 104.3238259°W	SE COR SEC 17 NMSP-E (NAD 27) N (Y) = 471685.5' E (X) = 508301.3' LAT = 32.2967771°N LONG = 104.3064677°W
JAMES E. TOMPKINS NEW MEXICO 14729 REGISTERED PROFESSIONAL LAND SURVEYOR <i>James E. Tompkins</i> Job No.: WTC50406 JAMES E. TOMPKINS 14729 Certificate Number		

RKI Exploration and Production, LLC

Saragossa 17 State Com 3

Section 17 T23S R26E

Eddy County, New Mexico

API No. 30-015-31935

CURRENT

KB - 3,413'

GL - 3,390'

10/3/14, NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 09 2015

RECEIVED

13 3/8" 48# H-40 @ 690'

9 5/8" 36# J-55 STC @ 2,598'

Tubing top to btm: 282 jts. (8,911') 2 7/8"
6.5# P-110 EUE tubing, XO, 81 jts (2,551')
2 3/8" 4.7# P-110 EUE tubing, AS-1X pkr,
1 jt. 2 3/8" tubing, 1.875" XN nipple @
11,502'.

TOC @ 4,900' (calculated)

DV Tool @ 5,410' per report

4 1/2" TOL @ 9,260' per CBL

7" 23/26# M-95/P-110 @ 9,732'

AS-1X packer @ 11,470'

PBTD 11,692'

TD 11,750'

Morrow: 11,574'-11,594' OA

4 1/2" 13.5# P-110 FL-S @ 11,742'

RKI Exploration and Production, LLC

Saragossa 17 State Com 3

Section 17 T23S R26E

Eddy County, New Mexico

API No. 30-015-31935

PROPOSED

12/2/14; JLM

KB - 3,413'

GL - 3,390'

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 09 2015

RECEIVED

13 3/8" 48# H-40 @ 690'

9 5/8" 36# J-55 STC @ 2,598'

TOC @ 4,900' (calculated)

DV Tool @ 5,410'
per report

Set whipstock, cut window @ 5,782'

See Drilling design diagram for lateral detail.

Set 15K# CIBP @ 5,800'

Spot 60 sx Class H cmt from 8,600'- 8,450'

4 1/2" TOL @ 9,260'
per CBL

Spot 60 sx Class H cmt from 9,800'- 9,650'

7" 23/26# M-95/P-110
@ 9,732'

Pump 25 sx Class H cmt from 11,030'-10,900'

Set CIBP @ 11,500'. Spot 25 sx Class H cmt on top of plug

PBTD 11,692'
TD 11,750'

Morrow: 11,574'-11,594' OA

4 1/2" 13.5# P-110 FL-S @ 11,742'

RKI Exploration Production

GEOLOGICAL PROGNOSIS PERMIAN

Saragossa 17 State Com 3

Well Name:	Saragossa 17 State Cor	Location	SHL	1980' FSL 660' FWL
API #:	30-015-31935		BHL	330' FSL 990' FWL
				Sec 17 - T23S - R26E
Field:	WC-015 G-04 5236 15D Bone Spring	Legal		Eddy Co., NM
Elevation:	GL(ft): 3,394	KB(ft): 3,413		Silver Oak 9 (17')
	LP (TVD) 6,338	TD: 7,766 MD 6,280 TVD		

FORMATION	DEPTH (TVD)(ft)	SUBSEA(ft)
Base_Lamar	1,661	1,752
Cherry Canyon	2,667	746
Topper	3,223	190
Castle	4,420	-1,007
Brushy Canyon B	4,660	-1,247
Brushy Canyon A	4,777	-1,364
Bone Spring	4,995	-1,582
Bone Spring 1 SS	5,875	-2,462
Bone Spring 1 LM	6,065	-2,652
Bone Spring 2 SS Target Top	6,221	-2,808
Bone Spring 2 SS Target Base	6,342	-2,929
Bone Spring 2 SS Target @ BHL		

Primary Objective(s): Bone Spring 2nd SS

Wellsite Geology & Mudlogging Program
Mudlogging Start Depth: KOP
Wellsite Geologist Start Depth: KOP
Sample interval: 30'

Mudlog report schedule: Twice daily (morning and afternoon)
Wellsite Geologist report schedule: Daily report Email Distribution list: zwilliams@rkixp.com , gtroutman@rkixp.com , jallen@rkixp.com , carterdw49@gmail.com

Open-Hole Logging Program
Open-hole logging depth: None

MWD
MWD GR & Survey start depth: KOP
Email standard MWD report after each survey to include projected to bit information on the subject line
Include the following attachments with each MWD report:
Survey data (excel)
5-inch TVD (.pdf)
5-inch MD (.pdf)
2-inch TVD (.pdf)
2-inch MD (.pdf)
LAS data

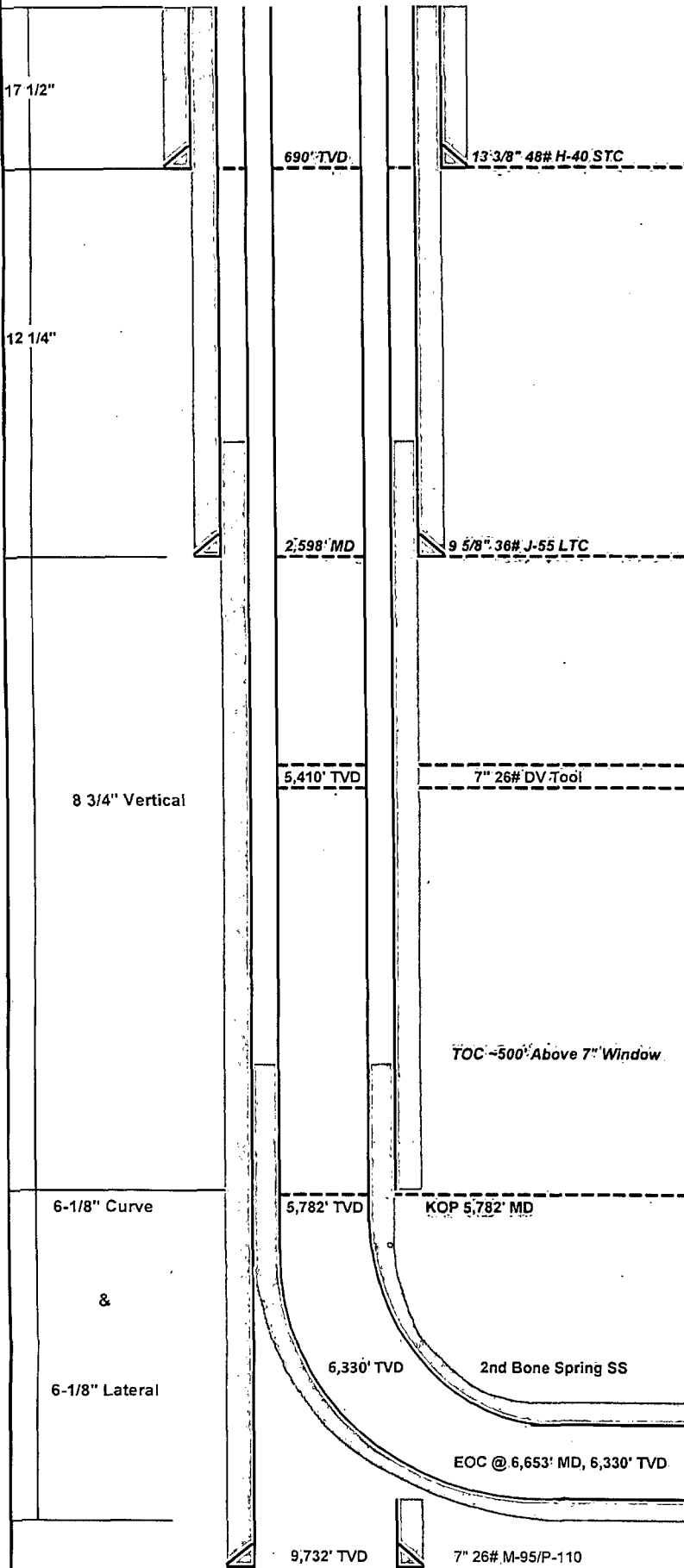
Geologist:	George Troutman O: (405) 996-5768 C: (720) 227-2740 gtroutman@rkixp.com	Darryl Carter C: (580) 618-1032 carterdw49@gmail.com	Jeanne Allen O: (405) 987-2166 C: (405) 821-6366 jallen@rkixp.com	
Engineer:	Brent Umberham Office: (405) 996-5748 Cell: (405) 623-5080 bumberham@rkixp.com	Joel Acosta Office: 405.987.2138 Cell: 405.441.4393 jacosta@rkixp.com	Preston Wray Office: (405) 987-2201 Cell: (405) 435-0089 pwrap@rkixp.com	Matt Holmes Office: (405) 987-2176 Cell: (405) 655-0966 mholmes@rkixp.com
RIG	Silver Oak 9 (832) 408-8326	Phillip Hughes	Charlie McDougal	

RKI
Exploration

SILVER OAK 9

Well: Saragossa 17 State Com 3
Prospect: 2nd Bone Spring SS
County: Eddy / New Mexico
Surface: 1980' FSL & 660' FWL 17-23S-26E
PBHL: 330' FSL & 990' FWL 17-23S-26E
GL: 3,390' KB: 3,413'

Drilling Engineer: Joel Acosta
Drilling Manager: Brent Umberham
Completions: Jaime McAlpine
Geology: George Troutman
Production: Jaime McAlpine
API: 30-015-31935



Wellhead Equipment	
Tubing Head	11" 5M X 7-1/16" 10M
DSA	13 5/8" 5M x 11" 5M
A-Section	13 3/8" 5M x 13 5/8" 5M

Tubular Detail						
String	Size	Wt'	Grade	Conn	From	To
Surface	13 3/8"	48#	H-40	STC	0'	690'
Intermediate	9 5/8"	36#	J-55	STC	0'	2,598'
Intermediate	7"	26#	P-110/M-95	BTC	0'	9,732'
Production	4-1/2"	11.6#	N-80	BTC	0	7766'

Directional Program	
Nudge:	N/A
KOP:	5,782' MD / 5,780' TVD
Build:	12°/100' DLS & 168.8° Az to 45° Inc
Azimuth:	168.80°
EOC:	6,653' MD, 6,330' TVD
Hold:	92.6° @ 168.8° Az
TD:	7,766' MD, 6,280' TVD
TD (X&Y):	N-S: -1,648', E-W: 327'
TD (VS):	1,681'
INC:	92.60°

BHA	
Curve:	
Lateral:	

Notes
This will be a re-entry to attempt a horizontal in the 2nd Bone Spring Sandstone. A 7" 26" casing whipstock will be set 10-20' above KOP to exit casing. The curve will be drilled with 6-1/8" bit and 4-3/4" directional tools. A cut-brine mud system will be utilized throughout the curve and lateral. Hole conditions will dictate mud weights.

Total Measured Depth: 7,766' MD
True Vertical Depth: 6,280' TVD

Engineer	Date	Cementing	Logging Company	Mud Loggers	Mud Company	Directional
Joel Acosta	12/3/2014	0	0	TBD	0	0
		0	0	N/A	0	0
		Production Liner System	Closed Loop System	Wellhead Company	Casing	Regulatory
(405) 435-0089		0	0	0		0
		0	0	0		0

