

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

WELL API NO. 30-007-20222
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name VPR D
8. Well Number 043
9. OGRID Number 300097
10. Pool name or Wildcat Castle Rock Park - Vermejo Gas

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒

2. Name of Operator
ARP Production Company, LLC

3. Address of Operator
Park Place Corporate Center One, 4th fl, 1000 Commerce Drive, Pittsburgh PA 15275

4. Well Location

Unit Letter C-09 : 1015 feet from the FNL line and 2143 feet from the FWL line
Section 9 Township 30N Range 18E NMPM NW/160 County Colfax

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
GL 8340

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: RECOMPLETION ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

See attached Recompletion Procedure for description of work proposed. Well bore diagram attached. Anticipate start of work between August 18 and August 30, 2014 dependent upon vendor availability.

OIL CONS. DIV DIST. 3

File C104 & C105 before returning to production. Include new & existing perms
JUL 22 2014

Spud Date:

2/23/2001

Rig Release Date:

Not Applicable

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

SIGNATURE

Carla L. Suszkowski

TITLE Dir. Of Environmental and Regulatory Affairs DATE 7/17/14

Type or print name Carla L. Suszkowski E-mail address: csuszkowski@atlasenergy.com PHONE: 412.489.0311

For State Use Only

APPROVED BY

Chuck Peru

TITLE

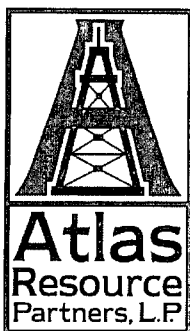
SUPERVISOR DISTRICT #3

DATE

AUG 15 2014

Conditions of Approval (if any):

AV



ARP Production Company, LLC
Vermejo Park Ranch D-043
Colfax County, NM
Recomplete Raton Coals

7/12/14

WELL DATA:

FORMATION: Raton Coal

CASING: 8-5/8", 24# set @ 315'.

CASING: 5-1/2", 15.5# set @ 2081'.

TOC: 60' (CBL)

PERFORATE:

564' – 572'	8'	32 holes
572' – 580'	6'	24 holes
666' – 672'	6'	24 holes
1216' – 1220'	4'	16 holes
1254' – 1258'	4'	16 holes
1283' – 1292'	9'	36 holes
1342' – 1348'	6'	24 holes

TD/PBTD: 2130' / 2066'

CURRENT STATUS: Active producer – 110 mcf/d + 8 bwpd (July 2014)

OBJECTIVE: Complete Raton coal intervals with nitrogen foam

NOTES:

This well was drilled and completed in the Vermejo coals. Additional coal seams have been identified in the Upper and Lower Raton coals as value adding with a combined 397 MMSCF Rec GIP. These coals will be perfed and stimulated with nitrogen foam and sand. All zones are above existing perfs. 19.5 total feet of coal will be stimulated.

Vermejo Park Ranch D-043

PROCEDURE:

1. Test anchors. MIRU pulling unit. Pull rods and pump. ND wellhead. NU BOPs.
2. POOH and stand back tubing in derrick. PU bit and scraper on 2-7/8" tubing. RIH to PBTD @ 2066'. POOH. If more rathole is needed, clean out well to original TD @ 2130'. POOH. RDMO.
3. Install frac valve and frac head.
4. Set flow through BP @ +/- 1420' to isolate lower completed zones.

1st Stage

5. MIRU perforators. MU 3-1/8" or 4" perf gun with 23 gram charges, .56 dia., and 120° phasing. RIH with gun and CCL-GR log. Correlate depths to CBL. Perforate the target coal intervals as follows:

1216' – 1220'	2'	8 holes
1254' – 1258'	3'	12 holes
1283' – 1292'	2'	8 holes
1342' – 1348'	4'	8 holes

POOH and LD perforating gun.

6. MIRU Basic Energy Services. Lay injection lines and pressure test to 1000 psi above maximum anticipated pressure. Hold safety meeting. Establish injection rate down 5-1/2" casing, then acidize interval with 500 gallons of 7.5% HCl acid. Flush with 1000 gallons clean fluid. Frac target interval @ 1216' – 1348' with 39,000 gallons of 70Q N₂ foam and **88,000** lbs of 16/30 proppant. Treat at 20 - 35 bpm. Max sand concentration at 4 ppg. Flush to top perf, then overflush by 0.5-2 bbls of water. See frac proposal for details – approx. 59,782 gallons.
7. Set flow through BP @ +/- 820'.

2nd Stage

8. RU perforators. MU 3-1/8" or 4" perf gun with 19 gram charges and 120° phasing. RIH with gun and CCL-GR log. Correlate depths to CBL. Perforate the target coal intervals as follows:

564' – 572'	8'	32 holes
572' – 580'	6'	24 holes
666' – 672'	6'	24 holes

POOH and LD perforating gun.

9. RU Basic Energy Services. Establish injection rate down 5-1/2" casing, then acidize interval with 500 gallons of 7.5% HCl acid. Flush with 1000 gallons clean fluid. Frac target interval @ 564' – 672' with 30,000 gallons of 70Q N₂ foam and **68,000** lbs of 16/30 proppant. Treat at 20-35 bpm. Max sand concentration at 4 ppg. Flush to top perf, then overflush by 0.5-2 bbls of water. See frac proposal for details – approx. 44,478 gallons.

Vermejo Park Ranch D-043

10. RDMO Basic Energy Services & the wireline unit.
11. Shut the well in for 2 hrs and flow to the pit to clean up on 12 to 16/64th choke.
12. MIRU workover rig.
13. PU bit on 2-7/8" tbg. Drill out plugs and clean out hole to PBTD. POOH and LD bit. TIH and land 2-7/8" production tbg approx. 70' below perfs (or deeper if possible). Run 1.75" pump and rods.
14. RD workover rig.
15. Put well on pump. Pump to pit until water de-foams. Vent gas to pit until clean to send to sales.

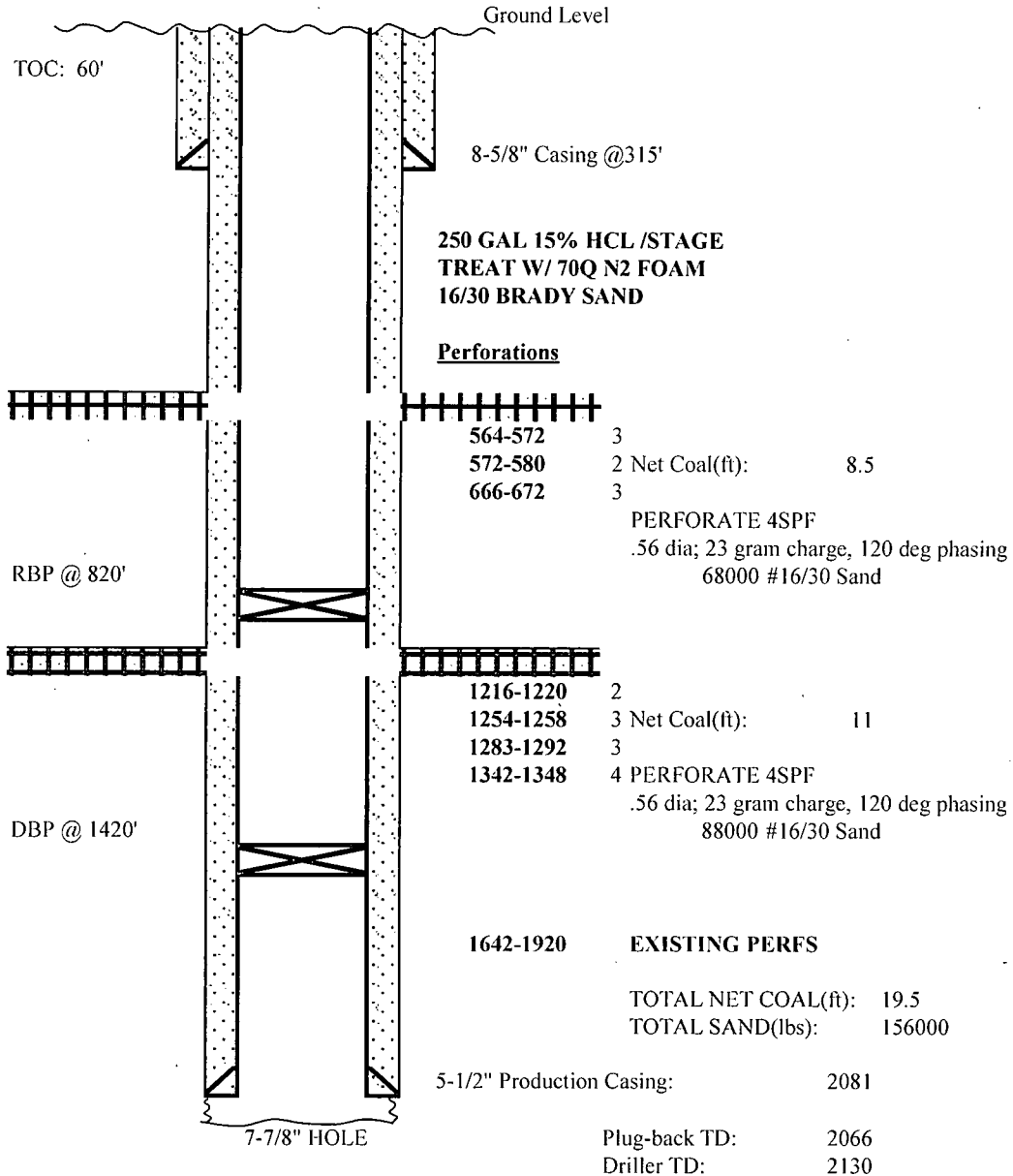
ARP Production Company, LLC

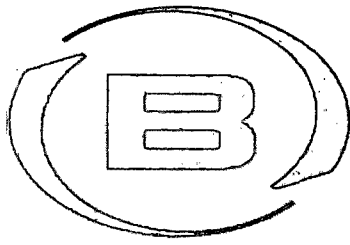
VPR D-43

RATON FIELD

2 STAGE: BOTH STAGES ABOVE EXISTING PERFS

July 12, 2014





BASICSM
ENERGY SERVICES

ATLAS ENERGY
VPR D-43
RATON, NM

2 STAGE 156,000 LBS 16/30 BROWN SAND
70 QUALITY FOAM

Prepared for CELESTE HAGLER / MATT BERRY
309 SILVER
Raton, NM 87740
505.652.8275

Prepared by MATTHEW HOFFMAN
970.867.2766

Service Point - Ft Morgan, Colorado
Contact: Jake Cuckow
(970) 867-2766

7/15/2014

7/15/2014

Celeste Hagler / Matt Berry
Atlas Energy
309 Silver
Raton, Nm 87740

Thank you for the opportunity to present the following treatment proposal. This recommendation is submitted for your consideration.

Well Data

Casing: 5 1/2 in 15.5 lb/ft, N-80
Tubing: None

Stage Info	Stage 1	Stage 2
Formation:	COAL	COAL
Packer/ EOT Depth:		
TVD:		
Perf. Top:	1216	564
Perf. Btm:	1348	672
SPF:	4	4
Total Shots:	92	44
Perf Diam:	0.42	0.42
Bht (deg F)	90	80
Frac Gradient:	0.75	0.75

Treatment Summary

Primary Fluid SpGr:	0.4	0.4
Treat Via:	Casing	Casing
Primary Fluid Type:	MavFoam 70	MavFoam 70
CO2 (y/n):	No	No
Estimated Treat psi:	810	400
Estimated Perf Fric (psi):	6	24
Acid Volume (gls):	250	250
Total Clean Fluid/Foam (gls):	58,566	43,914
Pad Volume (gls):	18,100	13,100
SLF Volume (gls):	39,000	30,000
Estimated Flush Volume (gls):	1,216	564
Proppant Volume (lbs):	88,000	68,000
Estimated Pump Time (min):	45.9	34.2

*NOTE: Total clean fluid/foam volume does not include flush volume.

Stage	HCl/ Prop Cl Fluid	Mesh ppg	gel	Clean Foam Clean Fluid gals	Prop Conc ppg	Downhole (design) Rate bpm	N2% %	CO2% %	N2 Rate scfm	CO2 Rate bpm	Slurry Rate bpm	Clean Rate bpm	N2 scf	CO2 Tons	Cumulative Surf Slurry bbbls	Surf Clean bbbls
PAD	15	0	1,400	250	35.0	70%	70%	70%	15.827	10.0	10.0	10.0	10.0	179.799	33	33
PAD	16/30	28	16,700	3,400	35.0	70%	70%	70%	15.477	11.0	10.0	10.0	10.0	216.404	185	185
SAND	16/30	28	6,800	1.0	35.0	70%	70%	70%	15.142	11.6	10.0	10.0	10.0	289.616	241	231
SAND	16/30	28	11,900	2.0	35.0	70%	70%	70%	14.514	12.5	9.6	9.6	9.6	417.736	351	316
SAND	16/30	28	11,900	3.0	35.0	70%	70%	70%	13.937	13.4	9.2	9.2	9.2	545.856	475	401
SAND	16/30	28	5,000	4.0	35.0	70%	70%	70%	13.403	14.3	8.9	8.9	8.9	599.688	532	437
FLUSH	16/30	0	1,216		35.0					35.0	35.0	35.0	35.0		561	466
<< == Totals == >>																
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FLUSH	16/30	0	1,216		35.0					35.0	35.0	35.0	35.0		561	466

[illegible][illegible]

900	psi
90.0	deg. F
331	scf/bbl
3060.0	scf/bbl
2.65	

FLUID SPECIFICATIONS AND REQUIREMENTS

Tank Requirements:	2	500 bbl tanks	Tank Bottoms:	30	bbl/tank
Fluid1:	28 lb	Gelled Water			29,430 Gallons
Additives:					
	0%				
RM2003	28 ppt	GEL-100, Cmhpq Gel			
RM141	0.05 qpt	BREAKER-503L, Liquid Enzyme Breaker			
RM142	0.3 ppt	GB-3, Oxidative Breaker			
RM323	2 gpt	S-3, Surfactant			
RM411	4 gpt	WF-1, Foamer			
RM582	0.15 ppt	BIO-II, Dry Biocide			
RM631	110 gpt	SI-1, Scale Inhibitor			

Fluid Required (Not Including Tank Bottoms):	29,430 Gallons
	701 Bbls
Tank Bottoms:	60 Bbls
Total Fluid Required:	761 Bbls

ACID REQUIREMENTS

Acid Requirements:			
Acid 1:	15 %	HCL	500 Gallons
Additives:			
RM303	4 gpt	Acid Inhib-3, Acid Inhibitor (Moderate Temp)	

CO2 AND N2 REQUIREMENTS

Nitrogen	833,680	Scf
Nitrogen Cooldown	100,000	Scf
Total Nitrogen Required:	933,680	Scf

PROPPANT REQUIREMENTS

SAND	16/30	Texas Gold	156,000	lbs
		Total:	156,000	lbs
