Form 3160-5
(June 2015)

OCD Received
8/4/2020

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM99736

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: COAL BED METHANE

8. Well Name and No.
SYNERGY 21-7-9 190

2. Name of Operator
SYNERGY OPERATING, LLC
Contact: GLEN PAPP
E-Mail: gpapp@synergyoperating.com

9. API Well No.
30-043-21051-00-S1

3a. Address
FARMINGTON, NM 87499

3b. Phone No. (include area code)
Ph: 505-599-4908 Ext: 1582
Fx: 505-599-4900

10. Field and Pool or Exploratory Area
BASIN FRUITLAND COAL

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T21N R7W NWNW 775FNL 755FWL
36.071405 N Lat, 107.588144 W Lon

11. County or Parish, State
SANDOVAL COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☒ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

KP

Synergy Operating LLC plans to plug and abandon the subject well.

Attached are the follow documents:

1) Wellbore plugging plan
2) Reclamation plan

Notify NMOCD 24hrs
Prior to beginning
operations

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

Electronic Submission #519613 verified by the BLM Well Information System
For SYNERGY OPERATING, LLC, sent to the Farmington
Committed to AFMSS for processing by JOE KILLINS on 06/24/2020 (20JK0725SE)

Name *(Printed/Typed)* THOMAS MULLINS — Title ENGINEERING MANAGER/PARTNER

Signature (Electronic Submission) — Date 06/19/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS — Title ENGINEER — Date 07/30/2020

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 Farmington

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

AV

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of Intention to Abandon
Well: SYNERGY 21-7-9 190
API: 300432105100S1

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.

3. If casing fails to test contact BLM Engineering. No changes are to be made to this approved Sundry without prior approval from the BLM.

4. A Subsequent Report Sundry Notice (Form 3160-5) must be submitted within 30 days after plugging operations are complete.

GENERAL REQUIREMENTS FOR
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES
FARMINGTON FIELD OFFICE

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

4.6 **A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.**

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.

5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.

5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.

5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.

6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H_2S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

BLM FLUID MINERALS
Geologic Report

Date Completed: 7/16/2020

Well No.	Synergy 21-7-9 #190		Location	775 FNL	&	755 FWL	
Lease No.	NMNM-99736		Sec. 09	T21N		R07W	
Operator	Synergy Operating		County	Sandoval	State	New Mexico	
Total Depth	906	PBTD 813	Formation	Fruitland Coal (target), Pictured Cliffs (TD)			
Elevation (GL)	6695		Elevation (KB)	6702			

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/Fresh water sands
Nacimiento Fm					Fresh water sands
Ojo Alamo Ss			Surface	330	Aquifer (fresh water)
Kirtland Shale			330	400	
Fruitland Fm			400	747	Coal/Gas/Possible water
Pictured Cliffs Ss			747	PBTD	Gas
Lewis Shale					
Chacra					
Cliff House Ss					Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					
Gallup					O&G/Water
Graneros Shale					
Dakota Ss					O&G/Water

Remarks:
P & A

- Log analysis of reference well #2 (attached worksheet) indicates the Ojo Alamo sands investigated contain fresh water (≤5,000 ppm TDS).
- Plugging plan has entire casing filled with cement, which will protect fresh water sands in the well bore.
- Perforations @ 703'-720'. CIBP @ 685'.

Reference Well:
1) Same — Fm. Tops

2) M & M Production
Socorro 21-7-10 #34
330' FSL, 2200' FEL
Sec. 10, T21N, R07W
GL 6771', KB 6783' — Water Analysis

Prepared by: *Chris Wenman*

Well Information:

Well Name & #:	Synergy 21-7-9 # 190
API #:	30-043-21051
Legal Location:	775’ FNL, 755’ FWL, Unit D, Section 9 – T21N-R07W, Sandoval County, NM
Latitude/Longitude:	36.07143 / -107.58816
Federal Lease #:	NMNM-99736
USGS Topo Map:	Lybrook SE
Drilling Spud date:	September 29, 2007
TD / PBTD:	906’ / 813’
Surface Hole Size:	12-1/4”
Surface Casing:	8-5/8” 24# J-55 @ 128’ Cmt’d w/ 95-sxs Type V cmt – Circ 7 bbls to surface
Production Hole Size:	7-7/8”
Production Casing:	5-1/2” 15.5# K-55 @ 906’ Cmt’d w/ 157 sxs (272 ft3) Type 5 Cement – Circulated 10 bbls to surface
Perforations:	Fruitland Coal: 703’ to 720’ (17’) – 80 holes
Tubing in Hole:	2-3/8” 4.7# J-55 (24 Jts) & 9’ long 4” ESP set at 772’ EOT
Formation Tops (KB):	Kirtland @ 330’, Fruitland @ 400’, Pictured Cliffs @ 747’

Project Summary:

Synergy Operating, LLC (“Synergy”) is the operator of the Synergy 21-7-9 # 190 well. A Fruitland Coal gas well. Synergy is submitting a Notice of Intent to Abandon (NIA) to the BLM to permanently plug and abandon the well and reclaim the surface disturbances. The 2-3/8” production tubing and ESP will need to be removed from the well and a CIBP set on wireline at 685’ above the existing Perforations (703’ to 720’)

No Cement Bond Log is planned to be run, due to all casing strings being cemented and circulated to surface.

Multiple Wells will be cemented to surface in a single day, utilizing 1” PVC tubing run (rigless) and cemented inside the 5-1/2” Production Casing.

Two (2) previous Sundry Notices have been submitted on this well that have not been returned by the BLM. The first was submitted on July 29, 2019, and the second was submitted on 10/31/2019.

The NIA will be submitted on the Sundry Notices and Reports on Wells, Form 3160-5.

Proposed wellbore plugging procedure:

MIRU SERVICE RIG.
ND WH. NU BOPE. COOH laying down 24 Jts and ESP Cable
2-3/8" 4.7# tubing and 9' ESP from 772'. RU wireline. Correlate w/ GR-CCL. PERFORATIONS 703' TO 720'. RIH AND SET CIBP @ 685'.
POOH. RDMO RIG. LOAD HOLE W/ WATER TRUCK. TEST 5-1/2" CASING TO 550#. CHART PRESSURE TEST. RELEASE
PRESSURE. RIH W/ 1" POLY PIPE AND TAG CIBP @ 685'. PULL UP. MIRU CEMENT PUMP TRUCK AND CIRCULATION TANK
MIX AND PUMP 16.3 BBLS CLASS G NEAT CEMENT AT 15.5 PPG (91.54 FT3 / 77.5 SXS @ 1.18 YIELD). FILLING ENTIRE CASING
WITH CEMENT TO SURFACE. CUT OFF WELLHEAD AND INSTALL ABOVE GROUND DRY-HOLE MARKER.

REMOVE ALL SURFACE EQUIPMENT AND TANK BATTERY. RIP LOCATION AND RECONTOUR PER BLM CONSULTATION.
RESEED SURFACE LOCATION AND SUBMIT FOR FINAL ABANDONMENT APPROVAL.

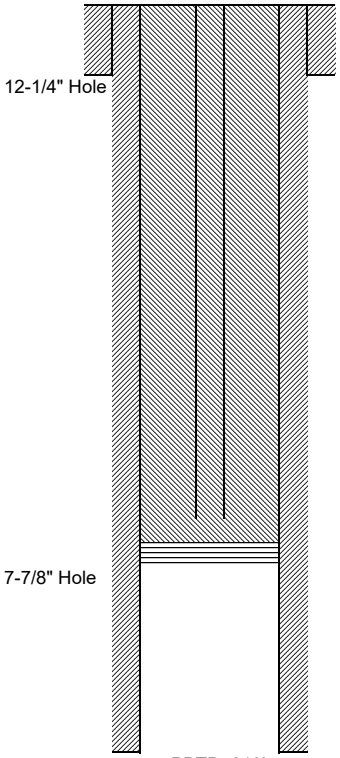
Wellbore diagrams:

Attached are simple wellbore schematics of the well before and after the above well work is completed.

SYNERGY 21-7-9 # 190
Unit D, Section 09-T21N-R07W
775' FNL, 755' FWL
6695' GL, 6700' KB

Steve & Son Rig # 1 Spud: 09/29/2007
Completed: 04/16/2008

API # 030-043-21051
NMNM-99736
36.07143 deg North, 107.58816 deg West



8-5/8" 24# K-55 Casing @ 128' w/ 95 sxs (113 ft3)
Circulated 7 bbls cement to surface

Dev Surveys	
199'	1.00
906'	0.75

1" PVC Coiled Pipe will be run in the well to tag the CIBP @ 685'
This will be cemented in the hole cementing the entire wellbore with 77.5 sxs (91.54 ft3) Class G Neat Cement to surface.

No Cement Bond Log will be run, due to the shallow depths and full cement circulation on all casing strings.

5-1/2" CIBP @ 685'

Fruitland Coal Perforations
703' to 720' - 17 feet - (80 holes)

5-1/2" 15.5# K-55 LT&C Casing @ 906', w/ 157 sxs (272 ft3) Type 5 cement @ 14.8 ppg
Good Circulation, Circulate 10 bbls to surface

PBTD: 813'
TD: 906'

Formation Tops	
San Jose	
Nacimiento	
Ojo Alamo	
Kirtland	330'
Fruitland	400'
Pict Cliffs	747'
TD:	906'

Formation Name: **Fruitland Coal**
04-09-2008 - MIRU Jet West. Run GR-CCL Log. Correlate w/ OH Log. Merge Log. RDMO.
04-11-2008 - MIRU PACE. Test Casing to 500# and chart 30 mins, 1200# - 2 mins. Chart for NMOCD. Good. RU Blue Jet. Correlate logs. Perforate Fruitland Coal 703' to 720' (17') with 80 holes in 2 - 10' guns 4 SPF RU PACE. Break down and Pump 130 bbls (5,460 gals) Fresh Water at 2.5 BPM @ 230#. No Proppant. ISIP 210#
04-15-2008 - MIRU PACE. Pump 5.5 to 7 BPM stimulation, 120 bbls (5,040 gals) Fresh Water. ISIP 420, 15min 50#
04-16-2008 - MIRU Steve & Son Rig # 1. Make Up ESP (9') and GIH w/ 24 Jts 2-3/8" 4.7# J-55 Tubing and # 6 Cable Land EOT @ 772'. RDMO.
06-26-2008 - Run ESP pump and production test well. Csg 47#, Take Gas Sample, Gas @ 5 MCFD
06-02-2017 - Run Production Test, 42.7 Hours, 12 MCF, 86 bbls water.

Specialty Logs, Misc
none

Open Hole Logs (Jet West)
GR-Density-Caliper - Surf to 748'
(10-04-2007)

Cased Hole Logs (Jet West)
GR-CCL (04-09-2008)

Thomas E. Mullins
June 19, 2020

SYNERGY 21-7-9 # 190
Unit D, Section 09-T21N-R07W
775' FNL, 755' FWL
6695' GL, 6700' KB

Steve & Son Rig # 1 Spud: 09/29/2007
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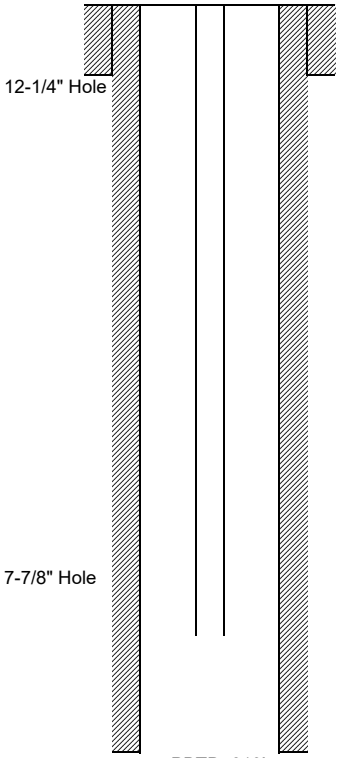

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Circulated 7 bbls cement to surface

Dev Surveys	
199'	1.00
906'	0.75

2-3/8" 4.7# J-55 Tubing 24 Jts @ 772' EOT with 9' long (4" ESP)
6 cable, banded to tubing.

Iron Mule Wellhead

Fruitland Coal Perforations
703' to 720' - 17 feet - (80 holes)

5-1/2" 15.5# K-55 LT&C Casing @ 906', w/ 157 sxs (272 ft3) Type 5 cement @ 14.8 ppg
Good Circulation, Circulate 10 bbls to surface

Formation Tops	
San Jose	
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Kirtland	330'
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RU Blue Jet. Correlate logs. Perforate Fruitland Coal 703' to 720' (17') with 80 holes in 2 - 10' guns 4 SPF
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Specialty Logs, Misc
none

Open Hole Logs (Jet West)
GR-Density-Caliper - Surf to 748'
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Cased Hole Logs (Jet West)
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Thomas E. Mullins
June 19, 2020