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Form 3160 (June 2015				EPARTM	NITED ST ENT OF T F LAND N	HE IN		F.	AY 04		DI	STR	FORM A	PPROVED 1004-0137 1uary 31, 2018
	WE		OMPLET	TION OR	RECOM	PLETI		AND	ntc oG Fie	eld Offic	e 5. I	Lease Se	erial No.	
la. Type o	£W-II		il Well	Gas Well	Day	Othe		in cau c	and w	lanagel				т Tribe Name
~ •			-		Dry Deepen			Zones	🗌 Hydrauli	c Fracturin	g		,	ent Name and No.
2. Name o	of Operator		other:								8. 1	Lease N	ame and W	ell No.
LOGOS Operating, LLC 3. Address 3a. Phone No. (Include area code)												Athena 2308 14L 1H		
2010 Afte	on Place, I						505-324-	4145	cruue ureu c	oue)	30-	30-045-35632		
4. Locatio		-					al requirements)	ŧ				Field ar		Exploratory
At surfa	2171 [°] ce	FSL 57	1' FVVL, N	W/SW, L S	ec 14, T23N	, R8W					11.	Sec., T.	, R., M., on	
												Survey	or Area Se	ec 14, T23N, R8W
At top p	rod. interva	al reporte	ed below								12.	County	or Parish	13. State
At total	depth 143	35' FSL	283' FWL	NW/SW, I	_ Sec 15, T2	3N, R8V	V				Sar	San Juan NM		
4. Date S	pudded		15. D	ate T.D. Rea	and the second second second second		16. Date Con	npleted	04/07/2018	3			ons (DF, RI	KB, RT, GL)*
2/10/201	8 Depth: MI	D 1040		/2018	Plug Back T	D. MD			eady to Prod			'8' GL		
ið. Iotal		/D 5125		19.	Flug Back T	TVI	10380' 5125'		20. Depth H	sridge Plu	ig Set:	TVD		
		Other Me	echanical L	ogs Run (Su	bmit copy of	each)			22. Was we					mit analysis)
GR/CCL									Was DS Directio] Yes (Sub] Yes (Sub	A 7
23. Casing Hole Size			(Report all Wt. (#ft.)	strings set i Top (MD)		(MD)	Stage Cementer	No.	of Sks. &	Slurry	Vol.	Cem	ent Top*	Amount Pulled
12-1/4"	9-5/8" J			0'	327 GL		Depth	Type 101 sk	of Cement	(BB 29 bbls	L)	O' CIF		10 bbls
8-3/4"	7" J-55			0'	5690'		n/a	769 sk		241 bbls	5	O' CIF		60 bbls
6-1/8"	4-1/2" F			5538'	10402'		n/a	441 sk		107 bbls		5538'		15 bbls
Management of the local division of the loca														
				the state of the state of					Contraction of the Contraction o					
4 Tubing	Record													
Size		h Set (MD)) Packer	Dept (MD)	Size		Depth Set (MD)	Packer I	Depth (MD)	Size	2	Depth	n Set (MD)	Packer Depth (MI
Size 2-3/8"	Deptl 5	5715')) Packer	r Dept (MD)	Size 2-7/8	3"	5466'	5	Depth (MD) 484'	Size	2	Depth	n Set (MD)	Packer Depth (MI
Size 2-3/8"	Deptl	5715' als) Packer	Top		3" 2		5 ecord	484'	Size		Depth	n Set (MD)	Packer Depth (Mi
Size 2-3/8" 5. Produc (A) Manco	Deptl 5 cing Interva Formatio	5715' als			2-7/8	3" 2 m	5466' 6. Perforation R	5 ecord nterval	484'				n Set (MD)	
Size 2-3/8" 5. Produc (A) Mance (3)	Deptl 5 cing Interva Formatio	5715' als		Тор	2-7/8 Botton	8" 2 m 6	5466' 6. Perforation R Perforated I	5 ecord nterval	0.38	Size	No. I			
Size 2-3/8" (5. Produc (4) Mance (3) (2)	Deptl 5 cing Interva Formatio	5715' als		Тор	2-7/8 Botton	8" 2 m 6	5466' 6. Perforation R Perforated I 6119'-10343' MI	5 ecord nterval	484' 0.38' 0.38'	Size " / 3spf ' / 2spf	No. H 800 48	Holes	open open	
Size 2-3/8" 5. Produc (A) Manco (B) (C) (C) (C)	Deptl 5 cing Interva Formatio DS	o715' als on	41	Top 53' MD	2-7/8 Bottoi 4905' VD	3" 2 m 6 5	5466' 6. Perforation R Perforated I 3119'-10343' MI 5727'-6088' MD	5 ecord interval D	484' 0.38' 0.38'	Size "/3spf '/2spf	No. H 800 48	Holes	open open	
Size 2-3/8" 5. Produc (A) Mance (A) Mance (A) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	eatment,	415 Cement Sc	Top 53' MD queeze, Post	2-7/8 Bottor 4905' VD	m 2 m 5 cturing c Amount,	5466' 6. Perforation R Perforated I 3119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a	5 ecord interval D res on Fi nd Date o	484' 0.38' 0.38' racFocus.org f Chemical D	Size " / 3spf " / 2spf CEP sclosure u	No. I 800 48 TEO pload on	Holes	open open R REC	
Size 2-3/8" 5. Product (A) Mance (A) Mance (B) (C) (C) (C) (C) (C) (C) (C) (C	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	eatment,	415 Cement Sc	Top 53' MD queeze, Post	2-7/8 Bottor 4905' VD	m 2 m 5 cturing c Amount,	5466' 6. Perforation R Perforated I 3119'-10343' MI 5727'-6088' MD hemical disclosu	5 ecord interval D res on Fi nd Date o	484' 0.38' 0.38' racFocus.org f Chemical D	Size " / 3spf " / 2spf CEP sclosure u	No. I 800 48 TEO pload on	Holes	open open R REC	
Size 2-3/8" 5. Produc (A) Mance (A) Mance (A) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	eatment,	415 Cement Sc	Top 53' MD queeze, Post	2-7/8 Bottor 4905' VD	m 2 m 5 cturing c Amount,	5466' 6. Perforation R Perforated I 3119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a	5 ecord interval D res on Fi nd Date o	484' 0.38' 0.38' racFocus.org f Chemical D	Size " / 3spf " / 2spf CEP sclosure u	No. I 800 48 TEO pload on	Holes	open open R REC	
Size 2-3/8" 25. Produc (5. Produc (7. Acid, F	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	eatment,	415 Cement Sc	Top 53' MD queeze, Post	2-7/8 Bottor 4905' VD	m 2 m 5 cturing c Amount,	5466' 6. Perforation R Perforated I 3119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a	5 ecord interval D res on Fi nd Date o	484' 0.38' 0.39' 0.30' 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Size " / 3spf " / 2spf CEP sclosure u	No. H 800 48 TEO pload on mscf N	Holes FracFoc	open open R REC	Perf. Status
Size 2-3/8" 5. Produc 4) Mance 3) (C) (C) (C) (C) (C) (C) (C) (C	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A	Cement Sc Fra	Top 53' MD queeze, Post c w/6,570,2	2-7/8 Bottor 4905' VD hydraulic fra	3" 2 m 6 cturing c Amount, Brady Sa	5466' 6. Perforation R Perforated J 6119'-10343' MI 5727'-6088' MD 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075b	5 ecord nterval D res on Fi nd Date c obls 70%	484' 0.38' 0.38' AC racFocus.org of Chemical D 6 N2 Foam	Size '/ 3spf '/ 2spf CEP sisclosure u , 46.33 n RMIN y:	No. F 800 48 TEO pload on mscf N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 5. Produc 4) Manco 3) C) 7. Acid, F 5727-103 8. Produc Date First	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	6715' als m reatment, val	Cement Sc Fra	Top 53' MD queeze, Post	2-7/8 Bottor 4905' VD	m 2 m 5 cturing c Amount,	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075t er Oil Gra	5 ecord interval D res on Find Date o obls 70%	484' 0.38' 0.38' AC racFocus.org of Chemical D 6 N2 Foam	Size '/ 3spf '/ 2spf CEP s sclosure u , 46.33	No. I 800 48 TEO pload on maser N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 5. Produce 4) Mance 3) C) D) 7. Acid, F 5727-103 8. Produce Date First Produced	Deptil 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours	Cement Sc Fra	Top 53' MD queeze, Post c w/6,570,2 tion Oil BBL	2-7/8 Bottor 4905' VD hydraulic fra 275# 20/40 B	3" 2 m 6 cturing c Amount, Brady Sa	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075t er Oil Gra Corr. A	5 ecord interval D res on Find Date o obls 70%	484' 0.38' 0.38' A (racFocus.org of Chemical D 6 N2 Foam	Size '/ 3spf '/ 2spf CEP s sclosure u , 46.33	No. F 800 48 TEO pload on mscf N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 2-3/8" 25. Produc A) Mance B) C) D) 27. Acid, F 5727-103 28. Produce C) Date First Produced 4/23/18 Choke	Test Date 4/24/18 Tog. Press	val A Hours Tested 12 . Csg.	Cement Sc Fra Test Produc 24 Hr.	Top 53' MD queeze, Post c w/6,570,2 tion Oil BBL 406 Oil	2-7/8 Bottor 4905' VD hydraulic fra 275# 20/40 E Gas MCF 5184 Gas	3" 2 m 6 cturing c Amount, Brady Sa Wat BBI 246 Wat	5466' 6. Perforation R Perforated I 6119'-10343' MI 5727'-6088' MD 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075E er Oil Gra Corr. A er Gas/Oi	5 ecord interval D res on Fi nd Date o bbls 709 ivity PI.	484' 0.38' 0.38' A (racFocus.org of Chemical D 6 N2 Foam	Size '/ 3spf '/ 2spf CCEP ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	No. I 800 48 TEO pload on maser N	Holes	open open us.org 2018	ORD
Size 2-3/8" 25. Produc A) Manco B) C) D) 7. Acid, F 5727-103 5727-103 5727-103 68. Produc Date First Produced 4/23/18 Choke Size	Depti 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours Tested 12 . Csg. Press.	Cement Sc Fra Fra	Top 53' MD queeze, Post c w/6,570,2 tion BBL 406 Oil BBL	2-7/8 Bottor 4905' VD hydraulic fra 275# 20/40 E Gas MCF 5184 Gas MCF	g" 2 m 2 cturing c Amount, Brady Sa BBI 246 Wat BBI	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075E er Oil Gra Corr. A er Gas/Oi Ratio	5 ecord interval D res on Fi nd Date o bbls 709 ivity PI.	484' 0.38' 0.38' 0.38' A Gas Gas Gas Gravity	Size '' / 3spf '' / 2spf '' / 2spf '' / sclosure u '' '' '' '' '' '' '' '' '' '' '' '' ''	No. I 800 48 TEO pload on maser N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 25. Produc A) Manco B) C) D) 7. Acid, F 5727-103 8. Produc 2ate First Produced 4/23/18 Choke bize 41/64	Depth 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours Tested 12 Csg. Press. 770	Cement Sc Fra Test Produc 24 Hr.	Top 53' MD queeze, Post c w/6,570,2 tion Oil BBL 406 Oil	2-7/8 Bottor 4905' VD hydraulic fra 275# 20/40 E Gas MCF 5184 Gas	3" 2 m 6 cturing c Amount, Brady Sa Wat BBI 246 Wat	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075E er Oil Gra Corr. A er Gas/Oi Ratio	5 ecord interval D res on Fi nd Date o bbls 709 ivity PI.	484' 0.38' 0.38' 0.38' Gas Gas Gravity Well Stat	Size '' / 3spf '' / 2spf '' / 2spf '' / sclosure u '' '' '' '' '' '' '' '' '' '' '' '' ''	No. I 800 48 TEO pload on maser N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 25. Produc A) Manco B) C) D) 7. Acid, F 5727-103 5727-103 5727-103 5727-103 C) 5727-103 C) 5727-103 C) 8. Produc Date First rroduced 4/23/18 Choke Size 41/64 8a. Produ	Depth 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours Tested 12 Csg. Press. 770 rval B	Cement Sc Fra Fra Z4 Hr. Rate	Top 53' MD queeze, Post c w/6,570,2 tion Oil BBL 406 Oil BBL 794	2-7/8 Botton 4905' VD hydraulic fra 275# 20/40 E 275# 20/40 E 5184 Gas MCF 5184	a" 2 m cturing c Amount, Brady Sa Wat BBI 246 Wat BBI 483	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075t er Oil Gra Corr. A er Gas/Oi A Ratio	state of the second sec	484' 0.38' 0.38' 0.38' 0.38' 0.38' Castrical D 6 N2 Foam FA B Gas Gravity Well Stat Flowing	Size '' / 3spf '' / 2spf CCEP '' sisclosure u , 46.33 Prod Gas	No. I 800 48 TED pload on mscf N 9 7 0 9 10 9 10 9 10 9 10 9 10 9 10 9 1	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 25. Produc A) Manco B) C) D) 7. Acid, F 5727-103 5727-103 5727-103 5727-103 5727-103 5727-103 5727-103 Choke Size 41/64 8a. Produc Date First	Depth 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours Tested 12 Csg. Press. 770	Cement Sc Fra Fra Z41!	Top 53' MD queeze, Post c w/6,570,2 tion BBL 406 Oil BBL	2-7/8 Bottor 4905' VD hydraulic fra 275# 20/40 E Gas MCF 5184 Gas MCF	g" 2 m 2 cturing c Amount, Brady Sa BBI 246 Wat BBI	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075b er Oil Gra c Corr. A er Gas/Oi Ratio	5 ecord interval D res on Fi nd Date o bbls 70%	484' 0.38' 0.38' 0.38' Gas Gas Gravity Well Stat	Size '' / 3spf '' / 2spf CCEP '' sisclosure u , 46.33 Prod Gas	No. I 800 48 TEO pload on maser N	Holes	open open us.org 2018	Perf. Status
Size 2-3/8" 2-3/8" 25. Produc B) C) D) 27. Acid, F 5727-103 5727-103 5727-103 28. Produc Date First Produced 4/23/18 Choke Size 41/64 8a. Produ Date First Produced Choke	Depti 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	val A Hours Tested Hours Tested Hours Tested	Cement Sc Fra Fra Z41!	Top 53' MD 100 100 100 100 100 100 100 10	2-7/8 Botton 4905' VD hydraulic fra 275# 20/40 E 5184 Gas MCF 5184 Gas	g" 2 m 2 cturing c Amount, Brady Sa BBI 246 Wat BBI 483	5466' 6. Perforation R Perforated I 5119'-10343' MI 5727'-6088' MD hemical disclosu Type of Material a and, 1,376,075t er Oil Gra Corr. A er Gas/Oi er Oil Gra Corr. A er Oil Gra corr. A	svity PI.	484' 0.38' 0.39' 0.30' 0.39' 0.30' 0.39' 0 0' 0 0' 0 0' 0 0' 0' 0' 0' 0' 0' 0'	Size '' / 3spf '' / 2spf '	No. I 800 48 TED pload on mscf N 9 7 0 9 10 9 10 9 10 9 10 9 10 9 10 9 1	Holes	open open us.org 2018	Perf. Status
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28b. Produ	action - Inter	rval C							
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
28c. Produ	iction - Inter	val D							
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

31. Formation (Log) Markers

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Тор	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
					ivieas. Depui
Ojo Alamo Kirtland	897 1072				
Fruitland Pictured Cliffs	1154 1514				
Lewis Cliff House	1657 2980				
Menefee Point Lookout	3058 3962				
Mancos Gallup	4153 4906				

32. Additional remarks (include plugging procedure).

33. Indicate which items have been attached by placing a check in the appropriate boxes:									
Electrical/Mechanical Logs (1 full set req'd.)	Geologic Report	DST Report	Directional Survey						
Sundry Notice for plugging and cement verification	Core Analysis	Other:							
34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*									
Name (please print) Marie E Florez	Titl	Ile Regulatory Specialist							
Signature Date 05/03/2018									
Title 18 U.S C. Section 1001 and Title 43 U.S C. Section 1212, false, fictitious or fraudulent statements or representations as to			ully to make to any department or agency of the United States any						