

9/18/2014 DATE IN	SUSPENSE	MAM ENGINEER	9/18/2014 LOGGED IN	DHC TYPE	PMAM146156725 APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

20 day  
hold

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Robbie A Grigg		Regulatory Compliance	9/17/2014
Print or Type Name	Signature	Title	Date
		rgrigg@mspartners.com	
		e-mail Address	

- DHC 4708  
- Cross Timbers  
Energy, LLC  
298299  
well  
- State "A" #77  
30-039-30280

REC'D  
OCT 10 P 2:30

POU  
- Blanco mesa verde  
72319  
- Basin Manages  
97232  
- Basin Dakota

71599

State A #77 – Downhole Commingle BHP and Parting Pressure Calculations:

	Mesaverde	Mancos	Dakota
Gas SG	0.694	0.681	0.698
Depth to Mid-Perf	5,195	6,853	7,549
Shut In Casing Pressure	1300	1150	265
Surf Temp (°F)	60	60	60
BHT	149	177	189
Static BHP	1,514	1,382	315
Fracture Parting Pressure	2,770	4,376	4,374

0.533 0.639 0.579

→ 0.65

In the State A #77 no pressures from any of the commingled zones will exceed the parting pressure of any other zone.

Modern Dakota Wells Drilled after 1990

LEASE NAME	NO.	RESERVOIR	SECTION	TOWNSHIP	RANGE	FIELD	OPERATOR	1st PROD	LAST PROD	DAYS ON	CUMUL OIL (BBL)	CUMUL GAS (MCF)	CUMUL WATER (BBL)	EUR OIL (MBO)	EUR GAS (MMCF)	AVERAGE WATER (BBL/D)
BREECH F	8M (NPI)	DAKOTA	34	27 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19980531	20101201	4378	2562	440750	797	3.05	595.04	0.18
STATE B COM	233R (NPI)	DAKOTA	16	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19940731	20101201	5296	2570	780973	1020	3.24	1034.18	0.19
BREECH F	1F (NPI)	DAKOTA	33	27 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19990228	20101201	4116	1628	663885	2088	2.23	1059.07	0.51
BREECH A	132R (NPI)	DAKOTA	9	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20010531	20101201	3087	1454	1128535	48449	2.14	2663.71	15.69
BREECH A	136F (NPI)	DAKOTA	10	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20010531	20101201	3445	2698	853163	33820	4.08	1913.61	9.82
BREECH C	144E (NPI)	DAKOTA	12	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19901231	20101201	5998	849	489660	652	0.97	648.45	0.11
BREECH B	147 (NPI)	DAKOTA	7	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20030831	20101201	1281	1276	174534	910	6.07	799.67	0.71
BREECH C	303 (NPI)	DAKOTA	13	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20040930	20101201	2200	1108	345665	723	3.42	954.24	0.33
BREECH E	850 (NPI)	DAKOTA	5	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20040930	20101201	2139	1071	267868	624	2.17	503.42	0.29
BREECH E	65 (NPI)	DAKOTA	5	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20060331	20101201	1709	227	183675	884	0.41	405.4	0.52
BREECH E	79 (NPI)	DAKOTA	1	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20060131	20101201	1601	169	68581	435	0.17	177.89	0.27
BREECH C	392 (NPI)	DAKOTA	13	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20060228	20101201	1761	4304	609403	1582	8.78	1632.76	0.9
BREECH C	828 (NPI)	DAKOTA	13	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20060228	20101201	1786	1149	218741	742	3.26	643.87	0.42
BREECH A	158 (NPI)	DAKOTA	10	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20070531	20101201	1308	178	154887	593	0.18	649.91	0.45
BREECH F	16 (NPI)	DAKOTA	33	27 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20070630	20101201	1036	438	133802	373	0.44	743.06	0.36
BREECH F	2 (NPI)	DAKOTA	33	27 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20070531	20100801	1167	1315	200477	955	4	872.14	0.82
STATE A	77 (NPI)	DAKOTA	2	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	20071130	20101201	1101	374	206370	791	1.27	851.74	0.72
BREECH	228M (NPI)	DAKOTA	18	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19991231	20101201	3855	1691	479453	1032	2.7	891.54	0.27
BREECH	812M (NPI)	DAKOTA	18	26 N	6 W	BASIN	CROSS TIMBERS ENERGY, LLC	19991231	20101201	3930	1480	480166	780	2.32	906.44	0.2
Average														2.68	944.53	1.72

Modern Mesaverde Wells Drilled after 1990

LEASE NAME	NO.	RESERVOIR	SECTION	TOWNSHIP	RANGE	FIELD	OPERATOR	1st PROD	LAST PROD	DAYS ON	CUMUL OIL (BBL)	CUMUL GAS (MCF)	CUMUL WATER (BBL)	EUR OIL (MBO)	EUR GAS (MMCF)	AVERAGE WATER (BBL/D)
BREECH	812M (NPI)	MESAVERDE	18	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19991231	20101201	3928	4684	261521	1210	7.10	479.72	0.31
BREECH	228M (NPI)	MESAVERDE	18	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19991231	20101201	3857	3588	250402	1261	5.59	450.24	0.33
BREECH E	850 (NPI)	MESAVERDE	5	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20060630	20101201	1574	681	73056	60	2.25	166.20	0.04
BREECH F	8M (NPI)	MESAVERDE	34	27 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19980531	20101201	4378	781	125566	512	0.91	157.81	0.12
BREECH E	118E (NPI)	MESAVERDE	1	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19961031	20101201	5048	2606	540226	656	4.95	1111.10	0.13
BREECH C	144E (NPI)	MESAVERDE	12	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19971231	20101201	4462	1890	246010	860	2.77	398.08	0.19
BREECH C	144 (NPI)	MESAVERDE	12	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19981231	20101201	4313	3851	197881	925	6.73	336.72	0.21
Average														4.33	442.84	0.19

Modern Mancos Wells Drilled after 1990

Modern Mancos Wells Drilled after 1990																	
LEASE NAME	NO.	RESERVOIR	SECTION	TOWNSHIP	RANGE	FIELD	OPERATOR	1st PROD	LAST PROD	DAYS ON	CUMUL OIL (BBL)	CUMUL GAS (MCF)	CUMUL WATER (BBL)	EUR OIL (MBO)	EUR GAS (MMCF)	AVERAGE WATER (BBL/D)	
BREECH F	1F (NPI)	MANCOS	33	27 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19990228	20101201	4136	10610	558552	16160	13.657	911.895	3.91	
STATE B COM	233R (NPI)	MANCOS	16	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19940731	20101201	5266	6644	1004217	98	8.849	1406.868	0.02	
STATE COM	113 (NPI)	MANCOS	2	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19971130	20101201	3985	12844	274036	363	15.136	493.912	0.09	
BREECH A	136 (NPI)	MANCOS	10	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19980331	20101201	4339	11417	133010	269	12.144	250.247	0.06	
BREECH C	144E (NPI)	MANCOS	12	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	19901130	20101201	6270	1118	190895	42	1.118	228.704	0.01	
BREECH E	79 (NPI)	MANCOS	1	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20061130	20101201	1377	141	37084	41	0.141	159.726	0.03	
BREECH D	240E (NPI)	MANCOS	15	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20050930	20101201	1859	2529	288675	75	6.969	910.33	0.04	
BREECH E	65 (NPI)	MANCOS	5	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20071031	20101201	1180	686	73005	74	2.116	311.944	0.06	
STATE COM	113E (NPI)	MANCOS	2	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20060430	20101201	1573	236	80802	240	0.614	244	0.15	
BREECH E	850 (NPI)	MANCOS	5	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20051031	20101201	1762	687	96407	510	1.169	302.888	0.29	
BREECH D	685E (NPI)	MANCOS	11	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20060131	20101201	1802	3794	276060	171	8.836	863.72	0.09	
BREECH C	244E (NPI)	MANCOS	14	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20060228	20101201	1786	4089	317459	86	12.733	934.921	0.05	
BREECH A	136F (NPI)	MANCOS	10	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20040731	20101201	2311	14249	1288401	2352	27.434	3476.366	1.02	
BREECH B	147 (NPI)	MANCOS	7	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20041031	20101201	2258	2460	280919	411	6.146	683.735	0.18	
BREECH E	58M (NPI)	MANCOS	3	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20030731	20101201	2653	5103	298295	86	8.357	937.712	0.03	
BREECH D	140M (NPI)	MANCOS	11	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20051130	20101201	1872	6009	392203	376	10.474	1136.386	0.2	
BREECH E	50E (NPI)	MANCOS	5	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20040131	20101201	2322	5140	260727	127	10.275	740.29	0.05	
STATE A	62M (NPI)	MANCOS	2	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20021130	20101201	2656	3422	205832	216	11.985	654.375	0.08	
BREECH C	689M (NPI)	MANCOS	12	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20031130	20101201	2668	905	177330	112	1.22	269.058	0.04	
BREECH F	8M (NPI)	MANCOS	34	27 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20021231	20101201	2810	2484	220946	120	4.494	491.283	0.04	
BREECH A	132R (NPI)	MANCOS	9	26 N	6 W	BLANCO	CROSS TIMBERS ENERGY, LLC	20040930	20101201	2246	20885	727681	4069	41.484	2138.046	1.81	
Average													9.78		835.54		0.39

Dakota/Mancos/Mesaverde 3-Zone Allocation

	Oil	Gas	Water
Dakota	16%	42%	75%
Mesaverde	26%	20%	8%
Mancos	58%	38%	17%

Dakota/Mancos 2-Zone Allocation

	Oil	Gas	Water
Dakota	22%	53%	81%
Mancos	78%	47%	19%

# CROSS TIMBERS ENERGY, LLC

September 17, 2014

Pete Martinez  
New Mexico State Land Office  
PO Box 1148  
Santa Fe, New Mexico 87504-1148

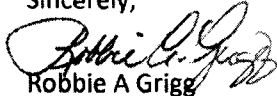
RE: Request to Downhole Commingle  
State A #77  
Location: G-2-T26N-R6W  
Rio Arriba County, New Mexico

Cross Timbers Energy, LLC, requests approval to downhole commingle the Basin Dakota, Blanco Mesaverde and the Basin Mancos pools in the State A #77 located in Rio Arriba County, New Mexico.

Please see attached spreadsheet showing ownership with Cross Timbers Energy, LLC being the only operator common in all there zones; therefore, there are no owners to notify. Please also find attached Form C-107A (Application for Downhole Commingling) filed with the NMOCD requesting approval to downhole commingle along with production allocation information.

If you need additional information or have any questions, please do not hesitate to call or email.

Sincerely,



Robbie A Grigg  
Regulatory Compliance  
Cross Timber Energy, LLC  
817-334-7842  
rgrigg@mspartners.com

X

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-30280	<sup>2</sup> Pool Code 71599	<sup>3</sup> Pool Name BASIN DAKOTA
<sup>4</sup> Property Code 2464	<sup>5</sup> Property Name STATE A	<sup>6</sup> Well Number 77
<sup>7</sup> GRID No. 003824	<sup>8</sup> Operator Name CAULKINS OIL COMPANY	<sup>9</sup> Elevation 6653'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	2	26-N	6-W		1975	NORTH	1950	EAST	RIO ARRIBA

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320			<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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

16

QTR. CORNER FD 3 1/4" B.C. BLM 1955		S 88-59-18 W 2614.6' (M)		SEC. CORNER FD 3 1/4" B.C. BLM 1955	
LAT. 36.51833°N (NAD 83) LONG. 107.43457° W (NAD 83) LAT. 36.51832°N (NAD 27) LONG. 107.43397° W (NAD 27)		1975'		S 00-10-47 W 2700.2' (M)	
2		1950'		QTR. CORNER FD 3 1/4" B.C. BLM 1957	

**17 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 a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

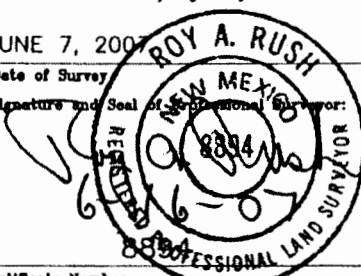
Robert L. Verquer 6-28-07  
Signature Date

Robert L. Verquer  
Printed Name

**18 SURVEYOR 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.

JUNE 7, 2007  
Date of Survey

Signature and Seal of Professional Surveyor:  


Certificate Number

**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 & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-039-30280</b>		<sup>2</sup> Pool Code <b>97232</b>		<sup>3</sup> Pool Name <b>BASIN MANCOS</b>	
<sup>4</sup> Property Code <b>2464</b>		<sup>5</sup> Property Name <b>STATE A</b>			<sup>6</sup> Well Number <b>77</b>
<sup>7</sup> OGRID No. <b>298299</b>		<sup>8</sup> Operator Name <b>CROSS TIMBERS ENERGY, LLC</b>			<sup>9</sup> Elevation <b>6653'</b>

**" Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>G</b>	<b>2</b>	<b>26N</b>	<b>6W</b>		<b>1975</b>	<b>NORTH</b>	<b>1950</b>	<b>EAST</b>	<b>RIO ARriba</b>

**" 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
<sup>12</sup> Dedicated Acres <b>160</b>		<sup>13</sup> Joint or Infill <b>I</b>		<sup>14</sup> Consolidation Code		<sup>15</sup> 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.

				<b><sup>17</sup> OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete in 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 in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.	
				Signature: <i>Robbie A. Grigg</i> Date: <b>9/23/14</b> <b>ROBBIE A GRIGG</b> Printed Name <b>rgrigg@mspartners.com</b> E-mail Address	
				<b><sup>18</sup> SURVEYOR CERTIFICATION</b> 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.	
				<b>6/7/2007</b> Date of Survey Signature and Seal of Professional Surveyor:  <b>ROY A BUSH 8894</b> Certificate Number	

**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 & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-039-30280		<sup>2</sup> Pool Code 72319	<sup>3</sup> Pool Name BLANCO-MESAVERDE (PRORATED GAS)
<sup>4</sup> Property Code 2464	<sup>5</sup> Property Name STATE A		<sup>6</sup> Well Number 77
<sup>7</sup> OGRID No. 298299	<sup>8</sup> Operator Name CROSS TIMBERS ENERGY, LLC		<sup>9</sup> Elevation 6653'


**<sup>10</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	2	26N	6W		1975	NORTH	1950	EAST	RIO ARriba

**<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill I	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

<sup>16</sup>  LAT. 36.51832°N (NAD 27) LONG. 107.43397°W (NAD 27)	1975'	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> 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 a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date 9/22/14 <b>ROBBIE A GRIGG</b> Printed Name rgrigg@mspartners.com E-mail Address	
	1950'		<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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. <b>6/7/2007</b> Date of Survey Signature and Seal of Professional Surveyor:  <b>ROY A BUSH 8894</b> Certificate Number



# CROSS TIMBERS ENERGY, LLC

September 18, 2014

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

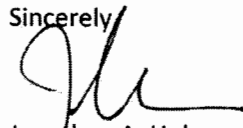
RE: Request to Downhole Commingle  
State A #77  
Location: G-2-T26N-R6W  
Rio Arriba County, New Mexico

Cross Timbers Energy, LLC, requests approval to downhole commingle the Basin Dakota, Blanco Mesaverde and the Basin Mancos pools in the State A #77 – API No. 30-039-30280 – (“the Well”) located in Section G-2 – Township 26 North – Range 6 West, Rio Arriba County, New Mexico.

Cross Timbers Energy, LLC is the current operator of the Well with a Working Interest of approximately 91%. Pickle Inc. owns the remaining interest in the Well and has been notified of the intention to commingle multiple zones. Attached, you will find Cross Timber’s DHC Allocation spreadsheet for comingling of production percentages. You will also find a Form C-107A (Application for Downhole Commingling) attached which was filed with the NMOCD requesting approval to downhole commingle.

If you need additional information or have any questions, please do not hesitate to call or email.

Sincerely,



Jonathan A. Holmes  
Land Manager & Marketing Advisor  
Cross Timber Energy, LLC  
817-334-7866  
jholmes@mspartners.com

X

# CROSS TIMBERS ENERGY, LLC

September 19, 2014

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

RE: Request to Downhole Commingle  
State A #77  
Location: G-2-T26N-R6W  
Rio Arriba County, New Mexico

Cross Timbers Energy, LLC, requests approval to downhole commingle the Basin Dakota, Blanco Mesaverde and the Basin Mancos pools in the State A #77 located in Rio Arriba County, New Mexico.

Production from the Dakota, Mancos and Mesaverde reservoirs will be commingled in the wellbore. The State A #77 has a dedicated production facility. Oil production will be measured in a tank and gas will be metered. An allocation formula based on expected ultimate recover for each reservoir will be used to attribute production for each reservoir. Supporting data for this allocation has been submitted with this application. The allocation determined for this well will be:

Reservoir	Oil Allocation	Gas Allocation
Dakota	16%	42%
Mancos	58%	38%
Mesaverde	26%	20%
Total	100%	100%

If you need additional information or have any questions, please do not hesitate to call or email.



CROSS TIMBERS  
ENERGY, LLC

Sincerely,



Gary Markestad, PE

NM 10342

Operations Engineer

Cross Timber Energy, LLC

817-334-7800

gmarkestad@mspartners.com

X

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

Form C-107A  
Revised August 1, 2011

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

APPLICATION TYPE  
☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Cross Timbers Energy, LLC

400 W. 7<sup>th</sup> St., Fort Worth, TX 76102

Operator Address  
State "A" 77 G-2-T26N-R6W

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 298299 Property Code 2464 API No. 30-039-30280 Lease Type: ☐ Federal ☒ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Mesaverde	Basin Mancos	Basin Dakota
Pool Code	72319	97232	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	4,914'-5,575' (Perforated)	6,751'-6,955' (Perforated)	7,448'-7,650' (Perforated)
Method of Production (Flowing or Artificial Lift)	Flowing	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)	320	1150	1500
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
Producing, Shut-In or New Zone	New Zone	New Zone	New Zone
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date:  Rates:	Date:  Rates:	Date:  Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 26 % Gas 20 %	Oil 58 % Gas 38 %	Oil 16 % Gas 42%

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 Robbie A. Grigg TITLE Regulatory Compliance DATE 09/17/2014  
TYPE OR PRINT NAME Robbie A Grigg TELEPHONE NO. ( 817 ) 334-7842  
E-MAIL ADDRESS rgrigg@mspartners.com

## McMillan, Michael, EMNRD

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**From:** Gary Markestad <gmarkestad@mspartners.com>  
**Sent:** Wednesday, September 24, 2014 2:04 PM  
**To:** McMillan, Michael, EMNRD  
**Subject:** RE: DHC State A77 DHC application Rio Arriba County, NM

Fracture parting pressures are based on the ISIP of acid breakdowns on the Breech A #175G well, a recently completed well nearby well.

Thanks,  
Gary Markestad  
817-614-2025  
[gmarkestad@mspartners.com](mailto:gmarkestad@mspartners.com)

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**From:** McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]  
**Sent:** Wednesday, September 24, 2014 2:56 PM  
**To:** Gary Markestad  
**Subject:** DHC State A77 DHC application Rio Arriba County, NM

Gary:  
Can you explain to me how you got your fracture parting pressure for the three zones. I was not clear how you got the figures.  
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



**Ray Powell, M.S., D.V.M.**  
**COMMISSIONER**

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

**COMMISSIONER'S OFFICE**

Phone (505) 827-5760  
Fax (505) 827-5766  
[www.nmstatelands.org](http://www.nmstatelands.org)

September 23, 2014

Cross Timbers Energy, LLC  
400 West Seventh Street  
Fort Worth, Texas 76102

Attn: Robbie A Grigg

Re: Downhole Commingling Application  
State A 77 API #30-039-30280  
Section 2-26N-6W  
Blanco Mesaverde Pool (72319), Basin Mancos Pool (97232), and Basin Dakota Pool (71599)  
Rio Arriba County, New Mexico

Dear Ms. Robbie A Grigg:

Thank you for your application to downhole commingle the Blanco Mesaverde Pool (72319), Basin Mancos Pool (97232), and Basin Dakota Pool (71599) from the referenced well, in Rio Arriba County New Mexico.

Since it appears that all the New Mexico Oil Conservation's (OCD) rules and regulations have been complied with, and there will be no loss of revenue to the State of New Mexico as a result of your proposed operation, your application is approved. Any deviation from the substance of your application will be cause for rescinding our approval, and approval is subject to like approval by the OCD.

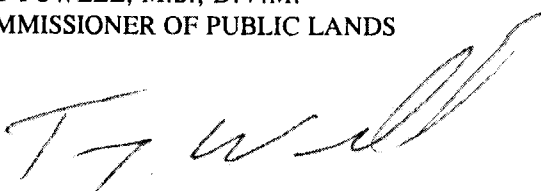
Please submit a filing fee in the amount of \$30.00.

If you have any questions or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY POWELL, M.S., D.V.M.  
COMMISSIONER OF PUBLIC LANDS

BY:

  
TERRY WARNELL, Director  
Oil, Gas and Minerals Division  
RP/TW/sk  
Enclosure  
xc: Reader File  
OCD-Daniel Sanchez