

COG - Tigercat Federal Com 2H

W½E½ Section 8, Township 26 South, Range 33 East, N.M.P.M. W½E½ Section 17, Township 26 South, Range 33 East, N.M.P.M. Limited in depth to the Bone Spring Formation

Section 8	Tract 1	
	Tract 2	
	Tract 3	
Section 17		
Section 17	Tract 4	
Section 17	Tract 4	

Tract 1: Section 8: NW¼NE¼ (40.0 acres)

	Total	100.000000%
MidCon Land Services, LLC		1.250000%
Tap Rock Resources, LLC		2.500000%
Meco IV, LLC		2.165625%
Sagerush Interest, LLC		2.165625%
Bradley S. Bates		3.850000%
RSC Resources, L.P.		10.106250%
Concho Oil & Gas LLC		19.490625%
COG Operating LLC		58.471875%

Occidental Permian Ltd.		100.000000%
	Total	100.000000%
Fract 3: Section 8: W½SE¼ (80.0 acres)		1.1
Occidental Permian Ltd.		100.000000%
	Total	100.000000%
Fract 4: Section 17: W½E½ (160.0 acres	5)	
COG Operating LLC		60.750000%
Concho Oil & Gas LLC		20.250000%
RSC Resources, L.P.		10.500000%
Bradley S. Bates		4.000000%
Sagerush Interest, LLC		2.250000%
Meco IV, LLC		2.250000%
	Total	100.000000%
Record Title Owner Tract 1	_	
COG Operating LLC		96.250000%
Tap Rock Resources, LLC		2.500000%
MidCon Land Services, LLC		1.250000%
	Total	100.00000%
Record Title Owner Tract 2		
Occidental Permian Ltd.		100.00000%
	Total	100.000000%

Record Title Owner Tract 3		
Occidental Permian Ltd		100.00000%
	Total	100.000000%

Record Title Owner Tract 4		
COG Operating LLC		100.00000%
	Total	100.000000%

Unit Working Interest 37.683985% COG Operating LLC Occidental Permian Ltd. 37.500000% Concho Oil & Gas LLC 12.561328% RSC Resources, L.P. 6.513281% Bradley S. Bates 2.481250% Sagebrush Interests, LLC 1.395703% Meco IV, LLC 1.395703% Tap Rock Resources, LLC MidCon Land Services, LLC 0.312500% 0.156250 100.000000% Total

Uncommitted Working Interest Owners / Record Title Owners

OCD Case No. 15879 COG OPERATING Exhibit #2



Certified Mail Return Receipt Requested Luke Bedrick, CPL

Senior Landman COG Operating LLC One Concho Center 600 W. Illinois Avenue Midland, Texas 79701

Main: 432-683-7443 Direct: 432-686-3000 LBedrick@concho.com

September 18, 2017

Working Interest Owners – Attached Listing

Re: <u>Well Proposal – Tigercat Federal Com 2H</u> Section 8: W½E½ Section 17: W½E½ Township 26 South, Range 33 East, N.M.P.M. SHL: 355' FNL & 1650' FEL, or a legal location in Unit B (Sec. 8) BHL: 200' FSL & 1650' FEL, or a legal location in Unit O (Sec. 17) Lea County, New Mexico

Gentlemen:

COG Operating LLC ("COG"), as Operator, hereby proposes to drill the Tigercat Federal Com 2H well as a horizontal well at the above-captioned location, or at a legal location as approved by the governing regulatory agency, to a TVD of approximately 10,299' and a MD of approximately 19,600' to test the Bone Spring Shale formation ("Operation"). The total cost of the Operation is estimated to be \$10,470,600.00, and a detailed description of the cost is set out in the enclosed Authority for Expenditure ("AFE").

COG is proposing to drill this well under the terms of the AAPL Form 610-1989 Operating Agreement which is enclosed for your review and approval. The Operating Agreement covers the $W_{2}^{\prime}E_{2}^{\prime}$ of Section 8 and the $W_{2}^{\prime}E_{2}^{\prime}$ of Section 17, T26S-R33E, Lea County, New Mexico ("Contract Area") and contains general provisions:

- 100% / 300% Non-consenting penalty
- \$7,000/\$700 Drilling and Producing rate
- COG Operating LLC named as Operator

Please indicate your participation election in the space provided on page 2, sign and return this letter, along with a signed copy of the enclosed AFE and a copy of your geologic well requirements. A self-addressed, postage paid envelope is enclosed for your convenience. If you do not wish to participate, COG proposes to acquire your interest via term assignment. It has the following general provisions:

- 3 year primary term
- Delivering a 80% NRI, proportionately reduced
- \$750 per net acre bonus consideration

The Term Assignment offer terminates October 30, 2017 and is subject to the approval of COG's management and verification of title.

One Carefor Creater PUD More Uller	OCD Case No. 15879	241 D 400 C00 2440 LE 100 201 6056
One Concho Center (600 West Illino	COG OPERATING Exhibit [#] 3	701 P 432.683.7443 F 432.221-0856

Tigercat Federal Com 2H September 18, 2017 Page 2

If an agreement cannot be reached within 30 days of the date of this letter, COG will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well if uncommitted at such time.

If you have any questions, please do not hesitate to contact the undersigned at (432) 686-3000.

Respectfully, COG Operating LLC

Luke Bedrick Senior Landman Northern Delaware Basin – East

LB:lr

Encl.

I/we hereby elect to participate in the Tigercat Federal Com 2H.

I/we hereby elect **not to** participate in the Tigercat Federal Com 2H.

Company or Individual Name:	
By:	
Name:	
Title:	
Date:	

Tigercat Federal Com 2H September 18, 2017 Page 3

Working Interest Owners

Certified Mail 91 7199 9991 7038 2027 4490

Occidental Permian Ltd. 5 East Greenway Plaza Houston, Texas 77046

Certified Mail 91 7199 9991 7038 2027 4452

RSC Resources, L.P. 6824 Island Circle Midland, Texas 79707

<u>Certified Mail 91 7199 9991 7038 2027 4339</u> Bradley S. Bates 101 Blackberry Court

Midland, Texas 79705

<u>Certified Mail 91 7199 9991 7038 2027 4414</u> Sagebrush Interests, LLC 2450 Fondren, Suite 112 Houston, Texas 77063

Certified Mail 91 7199 9991 7038 2027 4292

Meco IV, LLC 1200 17th Street, Suite 975 Denver, Colorado 80202

Certified Mail 91 7199 9991 7038 2027 4377

Tap Rock Resources, LLC 602 Park Point Drive, Suite 200 Golden, Colorado 80401

Certified Mail 91 7199 9991 7038 2027 4254

MidCon Land Services LLC 4401 South Lewis Place Tulsa, Oklahoma 74105

	Package ID: 9171999991703820274490	Electronic Certified
	Destination ZIP Code: 77046	Priority Envelope or package
Confirmation	Customer Reference	
Services	Recipient: Occidente	PBP Account #: 41592288
	Address:	Serial #: 1396235
		SEP 19 2017 2:41 PM

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COMPLETE THIS SECTION ON I	DELIVERY
A. Signature B. Regelived by (Printed Ifame) C-UIC-UIC 29	C. Date of Delivery
Service Type	 □ Priority Mall Express® □ Registered Mall™ □ Registered Mall Restricte □ Delivery
Certified Mall Restricted Delivery Collect on Delivery	Return Receipt for Merchandise
Collect on Delivery Restricted Delivery	Signature Confirmation
	A. Signature B. Received by (Printed Hame) B. Maceived by (Printed Hame) D. Is delivery address different from If YES, enter delivery address to Service Type Adult Signature Restricted Delivery Certified Mail® Certified Mail® Certified Mail®

Confirmation Services

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Package ID: 91719999991703820274452 Destination ZIP Code 279767 Customer Reference: Recipient SC Recipient Address:

Electronic Certified Priority Envelope or package

PBP Account #: 41592288 Serial #: 1396235 SEP 19 2017 2 34 PM

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailplece, or on the front if space permits. 1. Article Addressed to: 	A. Signature
RSC RESOURCES, L.P. 6824 Island Circle Midland, TX 79707	
Tigercat #2H Well Proposal 9590 9402 3057 7124 4775 79	Aduit Signature Restricted Delivery Certified Mail Restricted Delivery Certified Mail Restricted Delivery Certified Mail Restricted Delivery Certified Mail Restricted Delivery Cellect on Delivery
2. Article Number (Transfer from service label) 91 7199 9991 7038 202	Collect on Delivery Restricted Delivery
The second se	1

	Package ID: 9171999991703820274339	Electronic Certifie
	Destination ZIP Code: 79705	Priority Envelope or packag
Confirmation	Customer Reference:/gy 5 Deter	PBP Account #: 4159228
Services	Recipient 4 4 Chi - Chi	Serial #: 139623
	Address:	SEP 19 2017 2:35 P

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SENDER: COMPLETE THIS SECTION	COMPLETE	THIS SECTION ON	DELIVERY
 Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature	by (Printed Name)	Agent Addressee C. Date of Delivery
1. Article Addressed to:	D. Is delivery	address different from	
BRADLEY S. BATES		·	
BRADLEY S. BATES 101 Blackberry Court		1.25	
BRADLEY S. BATES 101 Blackberry Court Midland, TX 79705		i de la	
101 Blackberry Court Midland, TX 79705	sal	-di's	
101 Blackberry Court	Adult Signatur	e Restricted Delivery	Priortty Mail Express® Registered Mail™ Delivery
101 Blackberry Court Midland, TX 79705	Adult Signatur	e Restricted Delivery Restricted Delivery	Registered Mali TM Registered Mali Restrict

	Package ID: 9171999991703820274414	Electronic Certified
	Destination ZIP Code: 77063	Priority Envelope or package
Confirmation Services	Customer Recipient UPDUSh Thterests (LC) Address:	PBP Account #. 41592288 Serial #: 1396235 SEP 19 2017 2:36 PM

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Page 1 of 1

<u>9171999991703820274414</u>

9171999991703820274414

Delivered:

HOUSTON, TX 77063 on September 21, 2017 at 1:28 pm

Expected Delivery on:

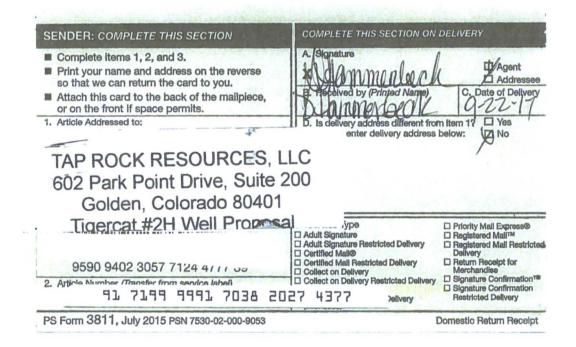
Thursday, September 21, 2017 by 8:00pm

	Package ID: 9171999991703820274292	Electronic Certified
	Destination ZIP Code: 80202	Priority Envelope or package
Confirmation	Customer Deference	
Services	Recipient:////////////////////////////////////	PBP Account #: 41592288
Services	Address	Serial #: 1396235
		SEP 19 2017 2:38 PM

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON	DELIVERY
 Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature X Jan M Att B. Received by (Printed Name) JGS M M - Sture	C. Date of Delivery
1. Article Addressed to:	D. Is delivery address different fro delivery address	
MECO IV, LLC		
1200 17th Street, Suite Denver, Colorado 8020		
Tigercat #2H Well Propo	Adult Signature Adult Signature Certified Mail® Certified Mail®	Priority Mail Express® Registered Mail™ Registered Mail Restricted Delivery Delivery Return Receipt for
9590 9402 3057 7124 4778 14	Collect on Delivery	Merchandise
2. Article Number (Transfer from centice label) 91 7199 9991 7038 200	27 4292 Delivery	Signature Confirmation Restricted Delivery

Confirmation	Package ID: 9171999991703820274377 Destination ZIP Code: 89401 Customer References	Electronic Certified Priority Envelope or package
Services	Customer reference Recipient	PBP Account #: 41592288 Serial #: 1396235
		SEP 19 2017 2:39 PM



	Package ID: 9171999991703820274254	Electronic Certified
	Destination ZIP Code: 74105	Priority Envelope or package
Confirmation	Recipient: August Acord Sur.	
Services	Recipient: 110001 Acros all.	PBP Account #: 41592288
	Address:	Serial #: 1396235
		SEP 19 2017 2:40 PM

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 Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailplece, or on the front if space permits. Article Addressed to: 	A Signature X Agent B. Received by (Printed Marrie) C. Date of Delivery And Support D. Is delivery address different from Item 12 Uses
MIDCON LAND SERVICES 4401 South Lewis Place Tulsa, Oklahoma 74105 Tigercat #2H Well Propos	



HINKLE SHANOR LLP

ATTORNEYS AT LAW PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

November 8, 2017

WRITER:

Gary W. Larson, Partner glarson@hinklelawfirm.com

VIA CERTIFIED MAIL

Occidental Permian LP 5 East Greenway Plaza, #110 Houston, TX 77046

Re: COG Operating LLC NMOCD Application

Dear Sir or Madam:

Enclosed is a copy of an application for approval of a 320-acre, non-standard spacing and proration unit and compulsory pooling that COG Operating LLC ("COG") has filed with the New Mexico Oil Conservation Division ("the Division"). The proposed non-standard spacing and proration unit is comprised of the W/2 E/2 of Section 8 and the W/2 E/2 of Section 17, Township 26 South, Range 33 East, N.M.P.M., Lea County, New Mexico.

This matter (Case No. 15879) is scheduled for hearing at 8:15 a.m. on Thursday, November 30, 2017 in Porter Hall at the Division's offices located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Occidental Permian LP ("Occidental") is not required to attend this hearing, but as an owner of an interest that may be affected by COG's application, it may appear at the hearing and present testimony. If Occidental does not appear at that time and become a party of record, it will be precluded from contesting the matter at a later date.

A party appearing in a Division case is required by the Division's Rules to file a Pre-Hearing Statement, which in this matter must be filed no later than Wednesday, November 22, 2017. The Pre-Hearing Statement must be filed with the Division's Santa Fe office at the address above, and should include: the name of the party and the party's attorney; a concise statement of the case; the name(s) of the witness(es) the party will call to testify at the hearing; the approximate amount of time the party will need to present the party's case; and an identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to me.

Thank you for your attention to this matter.

Very truly yours,

Gary W. Larson

OCD Case No. 15879

Exhibit #4

GWL:sm Enclosure

> PO BOX 10 ROSWELL, NEW MEXICO 88202 575-622-6510 (FAX) 575-623-9332

PO BOX 1720 ARTESIA, NEW MEXICO 88210 575-622-6510 (FAX) 575-746-6316 PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

Tigercat Federal Com 2H Offset Operators

Owner	Address	City	State	Zip	
Occidental Permian LP	5 East Greenway Plaza, #110	Houston	TX	77046	
AE & J Royalties LLC	460 St. Michael's Dr., Bldg. 300	Santa Fe	NM	87505	
Amoco Corp.	P.O. Box 301092	Houston	TX	77001	
Bradley S. Bates	101 Blackberry Court	Midland	TX	79705	
Charlotte W. Schuman and Karlyn S. Dole,					
Co-Trustees of the Charlotte W. Schuman	2121 Yorktown, #305	Tulsa	ОК	74114	
Living Trust dated 10-5-1988					
Cimarex Energy Co.	1700 Lincoln Street Suite 1800	Denver	СО	80203	
Cowhouse Crude, L.P.	101 Blackberry Ct.	Midland	TX	79705	
Daniel P. Schuman and Vida K. Schuman,					
Co-Trustees of the Daniel P. and Vida K. Schuman	4401 South Lewis Place	Tulsa	OK	74105	
Revocable Trust dated April 16, 2014					
Elanor Coulter and		P	MO	(5240	
Jean Coulter Clark Revocable Trust	406 North Church Street	Fayette	MO	65248	
EnCana Oil & Gas (USA) Inc.	370 17th Street, #1700	Denver	СО	80202	
EnCana Oil & Gas (USA) Inc.	370 17th Street, #1700	Denver	СО	80202	
Endeavor Energy Resources, L.P.	110 N. Marienfield, Suite 200	Midland	TX	79701	
EOG Resources Inc.	P.O. Box 2267	Midland	TX	79702	
Estate of Elizabeth R. Sharp	P.O. Box 51470	Midland	TX	79710	
GGM Exploration, Inc.	P.O. Box 123610	Fort Worth	TX	76121	
HAP Land LLC	5810 Wilson Road, Suite 270	Humble	TX	77396	
Liessa Schuman Wright	5777 Carell Ave	Agoura Hills	CA	91301	
Magnum Hunter Production	600 North Marienfeld	Midland	TX	79701	
Magnum Hunter Production, Inc.	202 S. Cheyenne Ave. Suite 1000	Tulsa	ОК	74103	
Marc Schuman	10627 Pictured Rocks Dr.	Peyton	СО	80831	
Matthew Schuman	789 Horatio Blvd	Buffalo Grove	IL	60089	
Meco IV, LLC	1200 17th Street, Suite 975	Denver	СО	80202	
Mickey Resources LLC	500 N. Shoreline Blvd, Suite 322	Corpus Christi	TX	78401	
MidCon Land Services, LLC	P.O. Box 31773	Edmond	OK	73003	

COG OPERATING Exhibit #5

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Tigercat Federal Com 2H Offset Operators

Owner	Address	City	State	Zip	
Muleshoe Crude, L.P.	101 Blackberry Ct.	Midland	TX	79705	
Newkumet Exploration, Inc.	P.O. Box 11330	Midland	TX	79702	
Petras Energy, L.P.	P.O. Box 4127	Midland	TX	79704	
R&R Royalty Ltd.	500 N. Shoreline Blvd, Suite 322	Corpus Christi	TX	78401	
RSC Resources, LP	6824 Island Circle	Midland	TX	79707	
Sagebrush Interests, LLC	2450 Fondren, Suite 112	Houston	TX	77063	
Tap Rock Resources, LLC	602 Park Point Drive, Suite 200	Golden	CO	80401	
Tilden Capital Minerals, LLC	P.O. Box 470857	Fort Worth	TX	76147	
WBA Resources, Ltd.	110 W. Louisiana, Suite 300	Midland	TX	79701	

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HINKLE SHANOR LLP

ATTORNEYS AT LAW PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

WRITER:

Gary W. Larson, Partner glarson@hinklelawfirm.com

November 8, 2017

VIA CERTIFIED MAIL

AE & J Royalties LLC 460 St. Michael's Dr., Bldg. 300 Santa Fe, NM 87505

Re: COG Operating LLC NMOCD Application

Dear Sir or Madam:

Enclosed is a copy of an application for approval of a 320-acre, non-standard spacing and proration unit and compulsory pooling that COG Operating LLC ("COG") has filed with the New Mexico Oil Conservation Division ("the Division").

The proposed non-standard spacing and proration unit is comprised of the W/2 E/2 of Section 8 and the W/2 E/2 of Section 17, Township 26 South, Range 33 East, NMPM, Lea County, New Mexico. The location of the proposed project area is orthodox. AE & J Royalties LLC's ("AE & J") interests are not being pooled, but as the owner of an interest in an offsetting tract, it is entitled to receive notice of COG's application.

This matter (Case No. 15879) is scheduled for hearing at 8:15 a.m. on Thursday, November 30, 2017 in Porter Hall at the Division's offices located at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. AE & J is not required to attend this hearing, but as an owner of an interest in an offset tract, it has the right to appear at the hearing and present testimony. If AE & J does not appear at the hearing it will be precluded from contesting the matter at a later date.

A party appearing in the case is required by the Division's Rules to file a Pre-Hearing Statement, which in this matter must be filed no later than Wednesday, November 22, 2017. The Pre-Hearing Statement must be filed with the Division's Santa Fe office at the address above, and should include: the name of the party and the party's attorney; a concise statement of the case; the name(s) of the witness(es) the party will call to testify at the hearing; the approximate amount of time the party will need to present the party's case; and an identification of any procedural matters that need to be resolved prior to the hearing. The Pre-Hearing Statement must also be provided to me.

Thank you for your attention to this matter.

Very truly yours,

COG OPERATING Exhibit [#]6

OCD Case No. 15879

GWL:sm Enclosure ROSWELL, NEW MEXICO 88202 575-622-6510 (FAX) 575-623-9332

PO BOX 1720 ARTESIA, NEW MEXICO 88211 575-622-6510 (FAX) 575-746-6316 PO BOX 2068 SANTA FE, NEW MEXICO 87504 505-982-4554 (FAX) 505-982-8623

7601 JEFFERSON ST NE • SUITE 180 ALBUQUERQUE, NEW MEXICO 87109 505-858-8320 (FAX) 505-858-8321

Affidavit of Publication

STATE OF NEW MEXICO COUNTY OF LEA

I, Gussie Black, Business Manager of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

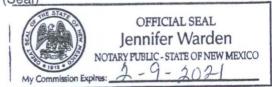
> Beginning with the issue dated November 09, 2017 and ending with the issue dated November 09, 2017.

Business Manager

Sworn and subscribed to before me this 9th day of November 2017.

Agministrative Coordinator

My commission expires February 09, 2021 (Seal)



This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said LEGAL NOTICE November 9, 2017

This is to notify all interested parties, including Occidental Permian LP, AE & J Royalties LLC, Amoco Corp., Bradley S. Bates, Charlotte W. Schuman and Karlyn S. Dole, Co-Trustees of the Charlotte W. Schuman Living Trust dated 10-5-1986, Cimarex Energy Co., Cowhouse Crude, L.P., Daniel P. Schuman and Vida K. Schuman, Co-Trustees of the Daniel P. and Vida K. Schuman Revocable Trust dated April 16, 2014, Elanor Coulter and Jean Coulter Clark Revocable Trust, EnCana Oil & Gas (USA) Inc., Endeavor Energy Resources, L.P., EOG Resources Inc., Estate of Elizabeth R. Sharp, GGM Exploration, Inc., HAP Land LLC, Liessa Schuman Wright, Magnum Hunter Production, Magnum Hunter Production, Inc., Marc Schuman, Matthew Schuman, Meco IV, LLC, Mickey Resources LLC, MidCon Land Services, LLC, Muleshoe Crude, L.P., Newkumet Exploration, Inc., Petras Energy, L.P., R&R Royalty Ltd., RSC-Resources, LLC, Tilden Capital Minerals, LLC, WBA Resources, LLC, Tilden Capital Minerals, LLC, WBA Resources, LLC, Tilden Capital Minerals, LLC, WBA Resources, LLC, and their successors and assigns, that the New Mexico Oil Conservation Division will conduct a hearing on an application submitted by COG Operating LLC (Gase-No. 15879) at 8:15 a.m. on November 30, 2017 in Porter Hall at 1220 South St. Francis Drive, Santa Fe, New Mexico: COG Operating LLC seeks an order (i) creating a 320-acre, non-standard oil spacing and proration unit (project area) comprised of the W/2 E/2 of Section 8 and the W/2 E/2 of Section 17, Township 26 South, Range 33 East', IMMPM, in Lea 'County, and (ii) pooling all uncommitted mineral interests in the Bone Spring formation underlying this acreage. The project area is to be dedicated to the Tigercat Federal Com #2H horizontal well, which will have a, surface location in Unit B of Section 8 and a bottom hole location in Unit O of Section 17, Township 26 South, Range 33 East. The completed interval for the well will be within the 330-foot standard offset required by the Division's rules. Also to be considered will be the

02107475

00202431

HINKLE, HENSLEY, SHANOR & MARTIN, LLP PO BOX 2068 SANTA FE, NM 87504



COG OPERATING LLC AUTHORITY FOR EXPENDITURE DRILLING

WELL NAME:	TIGERCAT FEDERAL COM #2H	PROSPECT NAME:	Bulldog 2633	
SHL:	355 FNL & 1650 FEL (Sec. 8)	STATE & COUNTY:	New Mexico, Lea	
BHL:	200 FSL & 1650 FEL (Sec. 17)	OBJECTIVE:	Drill and Complete	
FORMATION:	1st Bone Spring Shale	DEPTH:	19,600	
LEGAL:	Sec. 8 & 17, T26S- R33E	TVD:	10,299	

		Drig - Rig				Tank Btty		Pmpg	
INTANGIBLE COSTS	201	Release(D)		Completion(C)		Constrctn(TB)		Equipment(PEQ)	TOTAL 11,000
Title/Curative/Permit Insurance	201	4,000	302						4,000
Damages/Right of Way	202	5,000	303		351				5,000
Survey/Stake Location	204	6,000			352				6,000
Location/Pits/Road Expense	205	120,000	305	10,000	353	43,000	366		173,000
Dritting / Completion Overhead	206	10,200	306						10,200
Turnkey Contract	207	0							0
Footage Contract	208	0							0
Daywork Contract	209	646,000							646,000
Directional Drilling Services	210	206,000							206,000
Frac Equipment			307	1,393,000					1,393,000
Frac Chemicals Frac Proppant			308 309	505,000					505,000
Frac Proppant Transportation			310	141,000					141,000
Fuel & Power	211	123,000	311	5,000	354		367		128.000
Water	212	105,000	312	780,000	001		368		885.000
Bits	213	92,000	313	12,000			369	-	104,000
Mud & Chemicals	214	85,000	314	20,000			370		105,000
Drill Stem Test	215	0	315						0
Coring & Analysis	216	0							0
Cement Surface	217	37,000							37,000
Cement Intermediate	218	60,000							60,000
Cement 2nd Intermediate/Production	219	130,000							130,000
Cement Squeeze & Other (Kickoff Plug)	220	0					371		0
Float Equipment & Centralizers	221	50,000							50,000
Casing Crews & Equipment Fishing Tools & Service	222	47,000	322				373		47,000
Geologic/Engineering	223	0			355		372 373		0
Contract Labor	225	6,500	324	8,200	355	40,400	374	6,500	61,600
Company Supervision	226	61,200	326	30,000	357	-10,400	375	0,000	91,200
Contract Supervision	227	100,000	327	129,000	358		376	5,000	234,000
Testing Casing/Tubing	228	20,000	328	10,000			377		30,000
Mud Logging Unit	229	39,000	329						39,000
Logging	230	0					378		0
Perforating/Wireline Services	231	4,000	331	457,000			379		461,000
Stimulation/Treating			332	310,000			380		310,000
Completion Unit			333	138,000			381	8,800	146,800
Swabbing Unit			334				382		0
Rentals-Surface	235 236	140,000	335	275,000 22,500	359		383	7,000	422,000
Rentals-Subsurface Trucking/Forklift/Rig Mobilization	230	135,000	336 337	40,000	360		384 385	3,000	157,500
Welding Services	238	4,000	338	5,000	361		386	3,000	9,000
Water Disposal	239		339	60,000	362	135,000	387		195,000
Plug to Abandon	240	0	340	00,000	0.01		001		0
Seismic Analysis	241	0	341						0
Miscellaneous	242	0	342				389		0
Contingency	243	48,100	343	250,000	363		390		298,100
Closed Loop & Environmental	244	250,000	344	5,000	364		388		255,000
Dyed Diesel	245		345	397,000					
Coil Tubing			346	55,000					55,000
Flowback Crews & Equip			347	98,000					98,000
Offset Directional/Frac TOTAL INTANGIBLES	248	2 605 000	348	E 000 700		248 400	391	20.200	0
TOTAL INTANGIBLES		2,695,000		6,269,700		218,400		30,300	9,213,400
TANGIBLE COSTS									
Surface Casing	401	54,000							54,000
Intermediate Casing	402	141,000							141,000
Production Casing/Liner	403	314,000							314,000
Tubing			504	47,300			530	5,000	52,300
Wellhead Equipment	405	35,000	505	22,000			531	3,000	60,000
Pumping Unit				0			506	96,000	96,000
Prime Mover				0			507	0	0
Rods				0			508	55,000	55,000
Pumps-Sub Surface (BH)			509		P40		532	5,000	5,000
Tanks Flowlines					510 511	27,600			27,600
Heater Treater/Separator					512	105,000			63,200
Electrical System					512	51,500	533	15,000	66,500
Packers/Anchors/Hangers	414		514	6,000		01,000	534	2,000	8,000
Couplings/Fittings/Valves	415				515	92,000			92,000
Dehydration					517				0
Injection Plant/CO2 Equipment					518				0
Pumps-Surface					521	9,200			9,200
Instrumentation/SCADA/POC	4.00				522		529	7,000	7,000
Miscellaneous	419		519		523		535	3,000	3,000
Contingency	420		520		524 525	20.000	536		0
Meters/LACT Flares/Combustors/Emission					525 526	30,000			30,000
Gas Lift/Compression			527	15,000	526	18,400 35,000	528		18,400 50,000
TOTAL TANGIBLES		544,000	521	90.300	010	431,900	020	191,000	1,257,200
TOTAL WELL COSTS		3,239,000		6,360,000		650,300		221,300	10,470,600
COG Operating LLC % of Total Well Cost		31%		61%		6%		2%	
COG Operating LLC									
		Date Prepared:							
		COG Operating LLC							and the second second
We approve:		COO Operating LLO							-
% Working Interest		By:						OCD	Case No. 1
Company: Occidental Permian Ltd.									
By:								000	OPERAT
								COG	UPERAL

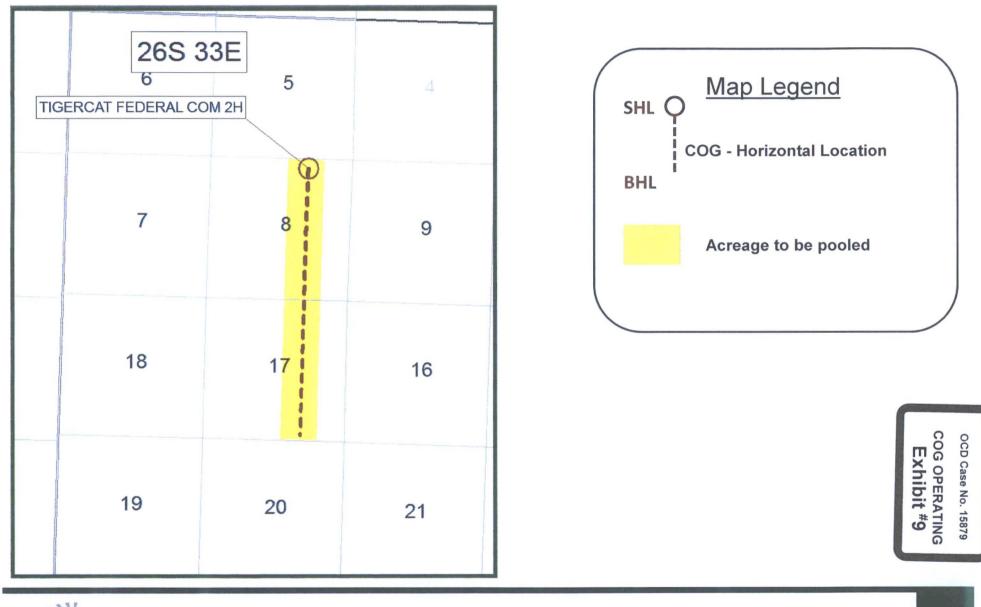
This AFE is only an estimate. By signing you agree to pay your share of the actual costs incurred.

Printed Name: Title: Date:

15879

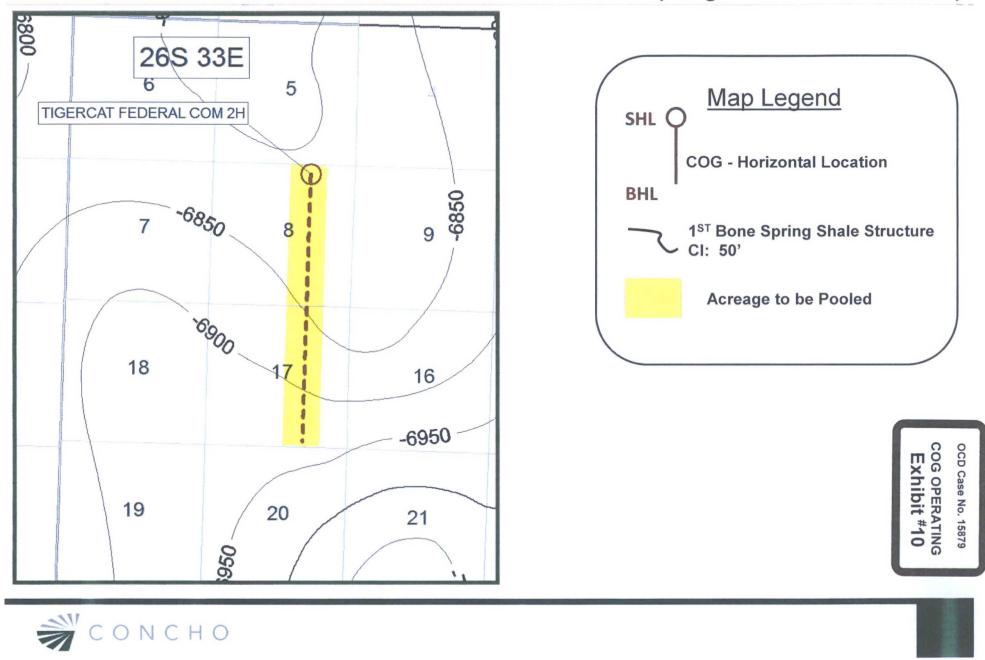
COG OPERATING Exhibit [#]8

Bone Spring Pool Tigercat Federal Com 2H Location

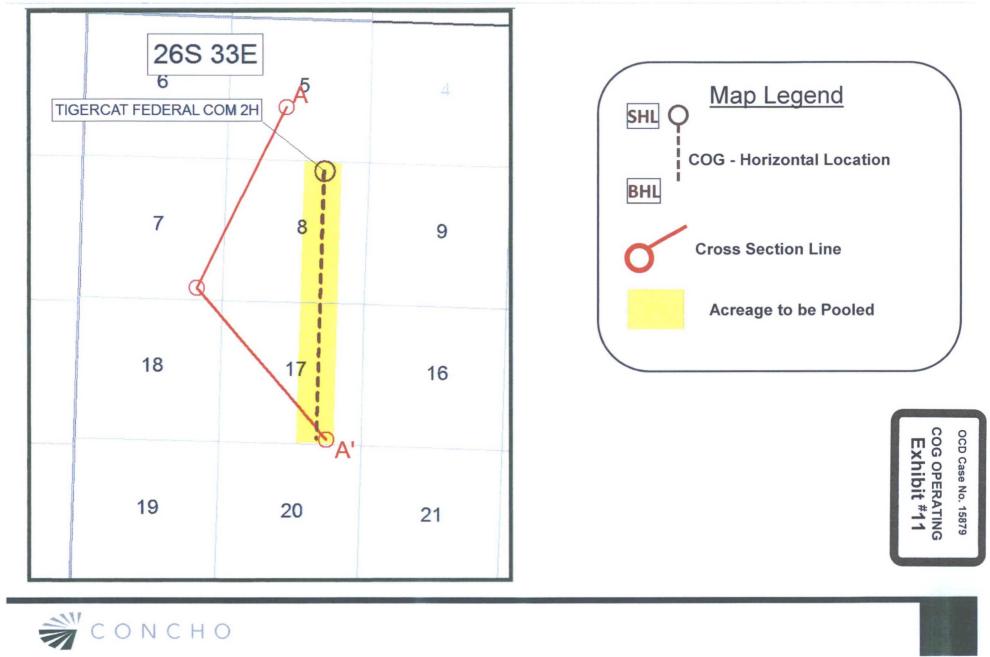




Bone Spring Pool 1ST Bone Spring Shale Structure Map



Bone Spring Pool Cross Section Map



Stratigraphic Cross Section A – A'

