Form 3160-3 March 2012)	STATES	HOBBS OCD	FORM APPR OMB No. 100 Expires October	4-0137
DEPARTMENT (OF THE INTERIOR	FO 0 0 2015	5. Lease Serial No. S-NMNM110841 - BH-N	MNM126974
APPLICATION FOR PER		EC 3 0 2015 ENTER	6. If Indian, Allotee or Tr	ibe Name
la. Type of work: 🗹 DRILL	REENTER	RECEIVED	7 If Unit or CA Agreement Madera 17 Federal Con	+#2H /2 171
Ib. Type of Well: 🔽 Oil Well 🗌 Gas Well	Other Single Z	one Multiple Zone	8. Lease Name and Well N Madora 17 Federal	10.
2. Name of Operator OXY USA Inc 16690	5>	16696	9. API Well No. 30-015- 30-025-	
3a. Address P.O. Box 50250 Midland, TX 79710	3b. Phone No. (inclu 432-685-5717	de area code)	10. Field and Pool, or Explor Jabalina Delaware, Sou	0-1
4. Location of Well (Report location clearly and in accord	dance with any State requirements.*)		11. Sec., T. R. M. or Blk. and	Survey or Area
At surface 330 FNL 400 FEL NENE(A)			Sec 17 T26S R35E	
At proposed prod. zone 350 FSL 400 FEL SES	E(P)			
 Distance in miles and direction from nearest town or po 10 miles southwest from Jal, NM 	st office*		12. County or Parish Lea	13. State NM
 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of acres in 600ac		ing Unit dedicated to this well	
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1840' 	19. Proposed Depth 9258'V 13553'I		WBIA Bond No. on file 00862 ESB000226	
 Elevations (Show whether DF, KDB, RT, GL, etc.) 3223.6' GR 	22. Approximate da 04/01/2015	ate work will start*	23. Estimated duration 35 days	
	24. Attachmer	nts		
he following, completed in accordance with the requirement	nts of Onshore Oil and Gas Order	No.1, must be attached to	this form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Fo SUPO must be filed with the appropriate Forest Service 	rest System Lands, the 5. 0 Office). 6.	Item 20 above). Operator certification	ions unless covered by an existin aformation and/or plans as may b	
5. Signature	Name (Printe David Stew	ed Typed)	Date	11/14
Sr. Regulatory Advisor		david stewart@ox	cv.com	
pproved by (Signature Steve Caffey	Name (Printe		Date	C 1 8 2015
itle FIELD MANAGER	Office	CARLS	BAD FIELD OFFICE	
pplication approval does not warrant or certify that the ap onduct operations thereon. onditions of approval, if any, are attached.	plicant holds legal or equitable ti	-	abject lease which would entitle the APPROVAL FOR T	
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, ates any false, fictitious or fraudulent statements or repres	make it a crime for any person k entations as to any matter within its	nowingly and willfully to s jurisdiction.	make to any department or agen	cy of the United

Carlsbad Controlled Water Basin

12/3/11/

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Approval Subject to General Requirements & Special Stipulations Attached SEE ATTACHED FOR CONDITIONS OF APPROVAL

JAN 0 4 2016

OXY USA Inc Madera 17 Federal #2H **APD Drilling Data**

LEASE NAME / NUMBER: Madera 17 Federal Com. #2H Federal L	ease No: <u>S-NMNM110841</u> BH-NMNM126974
STATE: <u>NM</u> COUNTY: <u>Lea</u>	
POOL NAME/NUMBER: Jabalina Delaware, Southwest	97597
SURFACE LOCATION: <u>330 FNL 400 FEL NENE(A) Sec 1</u>	7 T26S R35E
SL: LAT: 32.0495180N LONG:103.3817730W X:794826.0 Y:383039	.2 NAD: 27
BOTTOM HOLE LOCATION: <u>350 FSL 400 FEL SESE(P) Sec 17</u>	T26S R35E
SL: LAT: 32.0368666N LONG:103.3817560W X:794871.8 Y:378436	.9 NAD: 27

APPROX GR ELEV: 3223.6'

EST KB ELEV: 3248' (24.4' KB-GL)

16696

1. GEOLOGIC NAME OF SURFACE FORMATION a. Permian

OPERATOR NAME / NUMBER: OXY USA Inc.

ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH 2. WATER, OIL OR GAS

Formation	TVD - RKB	Expected Fluids
T. Rustler	1078	
T. Salt	1518	
T. Delaware Lamar / B. Anhydrite	5328	
T. Bell Canyon	5373	Form Water
T. Cherry Canyon	6338	Oil/Gas
T. Brushy Canyon	7938	Oil/Gas
Target Brushy Canyon Sand	9258	Oil/Gas
T. BSPG	9328	Oil/Gas

@ least 25' Fresh water may be present above the Rustler formation. Surface casing will be set below the top . of the Rustler to protect any possible fresh water.

GREATEST PROJECTED TD HZ: 13553'MD / 9258'TVD OBJECTIVE: Brushy Canyon

3. CASING PROGRAM

New Surface Casing ran in hole filled with 8.50 ppg mud

					(in)		(psi)	(psi)	SF	SF	SF
See 14.75 1400	11.75	42	H40	BTC	11.090	New	1966	1018	1.41	2.34	3.39

New Intermediate Casing ran in hole filled with 10.2 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
10.625	5350	8.625	32	J55	LTC	7,921	New	3928	2533	1.22	3.54	1.71

New Production Casing ran in hole filled with 9.0 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
7.875	13553	5.500	17	L80	BTC	4.892	New	7738	6285	1.22	1.44	1.69

Casing Design Assumptions:

Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + 70% CSG Burst rating
- · External: Pore Pressure from section TD to surface

CSG Test (Intermediate)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from the Intermediate hole TD to Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

CSG Test (Production)

- Internal: Displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface/Intermediate)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas Kick while drilling the production hole section is a burst load used to design the intermediate CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface/Intermediate)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the intermediate CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- · External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface/Intermediate/Production)

- · Internal: Displacement Fluid
- · External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- · External: MW of the drilling mud that was in the hole when the CSG was run

Tension Loads

Running CSG (Surface/Intermediate/Production)

· Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Intermediate/Production)

Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi)

Burst, Collapse and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software.

4. CEMENT PROGRAM:

Surface Interval

Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead: 0' – 600' (150% Excess)	410	600	Premium Plus cement with 1% Calcium Chloride – Flake (Accelerator), 4 % Bentonite (Light Weight Additive), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	9.12	13.5	1.73	1000
Tail: 600' – 1100' (150% Excess)	410	500	Premium Plus cement with 2 % Calcium Chloride - Flake (Accelerator)	6.39	14.8	1.35	1326

Intermediate Interval

Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead: 0' – 4850' (100% Excess)	1010	4850	Halliburton Light Premium Plus Cement with 5% Salt (Accelerator), 0.125 lbs/sk Poly-E-Flake (Lost Circulation additive), 5 lbs/sk Kol-Seal (Lost Circulation Additive), 0.35 % HR-800 (Retarder)	9.60	12.9	1.88	500
Tail: 4850' – 5350' (100% Excess)	160	500	Premium Plus cement with 0.5 % WellLife 734 (Cement Enhancer)	6.36	14.8	1.33	1586

Production Casing

Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead: 4350' – 9600' (100% Excess)	620	5250	Tuned Light Cement 10.5-11.0 ppg (<3kpsi), 75.2 lbm/sk Premium Cement with 14.8 lbs/sk Silicalite 50/50 Blend (Additive Material), 15 lbs/sk Scotchlite HGS-6000 (Light Weight Additive), 0.5 lbs/sk CFR-3 (Dispersant), 0.15 lbs/sk WG-17 (Gelling Agent), 1 lbs/sk Cal-Seal 60 (Accelerator), 1.5 lbs/sk Salt (Accelerator) and 2 % Calcium Chloride - Flake (Accelerator)	12.45	10.6	2.69	429 (500psi in 29 hrs)
Tail: 9600' – 13553' (40% Excess)	600	3953	Super H Cement with 0.125 lbs/sk Poly-E-Flake (Lost Circulation Additive), 3 lbs/sk Kol-Seal (Lost Circulation Additive), 0.5 % Halad(R)-344 (Low Fluid Loss Control), 0.4 % CFR-3 (Dispersant), 0.2 % HR-601 (Retarder) and 3 lbs/sk Salt (Accelerator)	8.40	13.2	1.66	1673

The volumes indicated above may be revised depending on caliper measurement.

5. DIRECTIONAL PLAN

Please see attached directional plan

6. PRESSURE CONTROL EQUIPMENT

Surface: 0' - 1100' None.

Intermediate and Production: 1100' MD/TVD - 13553' MD / 9258' TVD. Intermediate and Production hole will be drilled with a 13-5/8" 10M three ram stack with a 5M annular preventer and a 5M Choke Manifold.

a. All BOP's and associated equipment will be tested in accordance with Onshore Order #2 (250/5000 psi on rams for 10 minutes each and 250/3500 psi for 10 minutes for annular preventer, equal to 70% of working pressure) with a third party BOP testing service before drilling out the surface casing shoe. A Multibowl wellhead system will be used in this well See COP therefore the BOPE test will cover the test requirements for the Intermediate and Production sections.



b. The Surface and Intermediate casings strings will be tested to 70% of their burst rating for 30 minutes. This will also test the seals of the lock down pins that hold the pack-off in place in the Multibowl wellhead system.

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- c. Pipe rams will be function tested every 24 hours and blind rams will be tested each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be accommodated on the drilling spool below the ram-type BOP.
- **d.** The BOPE test will be repeated within 21 days of the original test, on the first trip, if drilling the intermediate or production section takes more time than planned.
- e. Other accessory BOP equipment will include a floor safety valve, choke lines, and choke manifold having a 5000 psi working pressure rating and tested to 5000 psi.
- f. The Operator also requests a variance to connect the BOP choke outlet to the choke manifold using a co-flex hose manufactured by Contitech Rubber Industrial KFT. It is a 3" ID x 35' flexible hose with a 10,000 psi working pressure. It has been tested to 15,000 psi and is built to API Spec 16C. Once the flex line is installed it will be tied down with safety clamps (certifications attached).
- g. BOP & Choke manifold diagrams attached.

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0'-1100 1180	8.5	28-38	NC	Fresh Water / Spud Mud
1100' - 5350'	10.2	28-32	NC	Fresh Water / NaCl Brine
5350' - 8540'	9.0	28-34	NC	Cut Brine / Sweeps
8540' - 13553'	9.0	32 - 50	< 18	Duo Vis / Salt Gel / Starch / PAC

7. MUD PROGRAM:

<u>Remarks</u>: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

8. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

- **a.** A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.
- b. Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.

9. POTENTIAL HAZARDS:

- a. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- b. No abnormal temperatures or pressures are anticipated. The highest anticipated pressure gradient is 0.447 psi/ft. Maximum anticipated bottom hole pressure is 4140 psi.
- c. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 35 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

11. WIRELINE LOGGING / MUD LOGGING / LWD

- a. Wireline Logging: Platform Express Quad combo from Int. casing shoe to Landing Point.
- b. Mud loggers to be rigged up from surface casing shoe to TD.
- c. Acquire GR while drilling, from Intermediate casing shoe to TD.

COMPANY PERSONNEL:

Title	Office Phone	Mobile Phone
Drilling Engineer	(713)985-6949	(832) 270-6883
Drilling Engineer Supervisor	(713)350-4950	(832) 528-3268
Drilling Superintendent	(713)215-7617	(281) 682-3919
Drilling Manager		(713) 689-4946
	Drilling Engineer Drilling Engineer Supervisor Drilling Superintendent	Drilling Engineer(713)985-6949Drilling Engineer Supervisor(713)350-4950Drilling Superintendent(713)215-7617







FLEX3 STD CHOKE MANIFOLD (COMPREHENSIVE)



CM-2









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CL-1



CL-2





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FH--4

Form No 100/12

----- PHOENIX Beattie

Phoenix Beattie Corp 11535 Brittmoore Park Drive Houston, TX 77041 Tel: (032) 327-0141 Fax: (032) 327-0146 E-moil mail@phoenixbeattie.com www.phoenixbeattie.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	1
Customer / Invoice Addres HELMERICH & PAYNE INT'L (1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - R 13609 INDUSTRIAL ROAD HOUSTON, TX 77015	IG 370		

Customer Acc No	Phoenix Beattie Contract Manager	Phoenix Beattie Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattle Part Number / Description	Qty Ordered	Oty Sent	Oty To Follow
1	HP10CK3A-35-4F1 3" 10K 16C C&K HOSE x 35ft OAL CW 4.1/16" API SPEC FLANGE E/ End 1: 4.1/16" 10Kpsi API Spec 6A Type 68X Flange End 2: 4.1/16" 10Kpsi API Spec 6A Type 68X Flange c/w BX155 Standard ring groove at each end Suitable for H2S Service Working pressure: 10,000psi Test pressure: 15,000psi Standard: API 16C Full specification Armor Guarding: Included Fire Rating: Not Included Temperature rating: -20 Deg C to +100 Deg C	1	1	0
2	SECK3-HPF3 LIFTING & SAFETY EQUIPMENT TO SUIT HP10CK3-35-F1 2 x 160mm ID Safety Clamps 2 x 244mm ID Lifting Collars & element C's 2 x 7ft Stainless Steel wire rope 3/4" OD 4 x 7.75t Shackles	1	1	0
3	SC725-200CS SAFETY CLAMP 200MM 7.25T C/S GALVANISED	1	1	0

Continued...

All goods remain the property of Phoenix Beattie until paid for in full. Any damage or shortage on this delivery must be advised within 5 days. Returns may be subject to a handling charge.



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Fluid Technology

Quality Document

	TY CONT		ATE	CERT. N	V°:	746	
PURCHASER:	Phoenix Bea	ttie Co.		P.O. Nº:	0	02491	
CONTITECH ORDER Nº:	412638	HOSE TYPE:	3" ID	Cho	oke and K	II Hose	
HOSE SERIAL Nº:	52777	NOMINAL / AC	TUAL LENGTH:		10,67 m		
W.P. 68,96 MPa 1	iaq 0000	т.р. 103,4	MPa 1500	0 psi	Duration:	60 ~	min.
Pressure test with water at ambient temperature \uparrow 10 mm = 10 Min. \rightarrow 10 mm = 25 MPa		attachment.	(1 page)				
		COUPL	INGS				
Туре		Serial Nº	(Quality		Heat Nº	
3" coupling with	917	913	AIS	14130		T7998A	
4 1/16" Flange end			AIS	14130		26984	
INFOCHIP INSTALL	ËD					PI Spec 16	
WE CERTIFY THAT THE ABOVE PRESSURE TESTED AS ABOVE			RED IN ACCORD	ANCE WIT	THE TERM	as of the ord	ER AND
Date:	Inspector		Quality Control				
04. April. 2008			Baca (Inde	Tech Rubber strial Kft. Control Dep (1)		(

Coflex Hose Certification

Form No 100/12

FH-6

Phoenix Beattle Corp 11535 & fittatore Park Drive Houston, TX 77041 Tel: (822) 327-0148 Fax: (832) 327-0148 E-eafl anilghoenixbeattle.com www.phoenixbeattle.com

Delivery Note

Customer Order Number	370-369-001	Delivery Note Number	003078	Page	2
Customer / Invoice Addres HELMERICH & PAYNE INT'L I 1437 SOUTH BOULDER TULSA, OK 74119		Delivery / Address HELMERICH & PAYNE IDC ATTN: JOE STEPHENSON - R 13609 INDUSTRIAL ROAD HOUSTON, TX 77015	IG 370		

Customer Acc'No	Phoenix Beattie Contract Manager	Phoenix Beattle Reference	Date
H01	JJL	006330	05/23/2008

Item No	Beattie Part Number / Description	Oty Ordered	Oty Sent	Qty To Follow
4	SC725-132CS SAFETY CLAMP 132MM 7.25T C/S GALVANIZED C/W BOLTS	1	1	0
5	00CERT-HYDRO HYDROSTATIC PRESSURE TEST CERTIFICATE	1	1	0
6	OOCERT-LOAD LOAD TEST CERTIFICATES	1	1	0
7	OOFREIGHT INBOUND / OUTBOUND FREIGHT PRE-PAY & ADD TO FINAL INVOICE NOTE: MATERIAL MUST BE ACCOMPANIED BY PAPERMORK INCLUDING THE PURCHASE ORDER, RIG NUMBER TO ENSURE PROPER PAYMENT	1	1	0
	r T	Pag	\bigcap	
	Phoenix Beattle Inspection Signature :	LEVER VIEW	Mier	
	Received in Good Condition : Signature	P		
	Print Name		V	

Date

All goods remain the property of Phoenix Beattle until paid for in full. Any damage or shortage on this delivery must be advised within 5 days. Returns may be subject to a handling charge.



Page: 1/1

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Page 1
Bin No Drg wter
Test Cert No
D Betch No 52777/H884 002440
2491
c Oty
Material Spec
Material Desc
Description

We hereby certify that these goods have been inspected by our Quality Management System, and to the best of our knowledge are found to conform to relevant industry standards within the requirements of the purchase order as issued to Phoenix Beattle Corporation.



Coflex Hose Certification

Coflex Hose Certification



Fluid Technology

Quality Document

CERTIFICATE OF CONFORMITY

Supplier : CONTITECH RUBBER INDUSTRIAL KFT. Equipment : 6 pcs. Choke and Kill Hose with installed couplings Type : 3" x 10,67 m WP: 10000 psi Supplier File Number : 412638 Date of Shipment : April. 2008 Customer : Phoenix Beattie Co. Customer P.o. : 002491 Referenced Standards / Codes / Specifications : API Spec 16 C Serial No.: 52754,52755,52776,52777,52778,52782

STATEMENT OF CONFORMITY

We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Signed

Position: Q.C. Manager

_ontiTech Rubber Industrial Kft. Quality Control Dept. () Date:

Date: 04. April. 2008

H25-2

