BEPCO, L.P. P.O. Box 2760 Midland, Texas 79702



432-683-2277

March 15, 2007

FAX: 432-687-0329

#### **FEDERAL EXPRESS**

New Mexico Oil Conservation Division 1220 St. Francis Santa Fe, New Mexico 87505 Attention: David Brooks Engineering Bureau

API #30-015-34764

Re:

BEPCO, L.P. - Horned Toad 36 St. No. 1H

Section 36, T24S-R29E Eddy County, New Mexico

Dear Mr. Brooks:

Please reference our prior conversations concerning the drilling of the referenced well by BEPCO, L.P. as a horizontal oil well targeted to the Lower Cherry Canyon Formation. As set forth on the attached survey, the surface location for the above well is now set on a non-standard location due to topographical issues. Normally, this would require NSL approval from your office. Since a vertical well was approved as a NSL 5358 on 4/5/2006 (copy attached) BEPCO, L.P. requests that this NSL be amended to allow for the drilling of a horizontal well from this location. As we discussed 3/14/2007 the horizontal drilling plan and our completion procedure will cause the shallowest producing zone and corresponding perforations to be at a standard location. A summary of our plans and pertinent distances are as follows:

Drilling Plan:

Drill vertical hole to a depth of approx 5077' TVD at which point a directional hole will be kicked off at an azimuth of 180° building angle at 13.48°/100' to a max of 89.6°. This angle will be maintained to a MD of 8644' (TVD 5542').

Distance from SL to nearest 40 ac. proration unit line:

305 ft.

Penetration point at top of the L. Cherry Canyon:

515 ft. from nearest 40 acre proration unit line

Top of L. Cherry Canyon at penetration point:

5,465' TVD

Footage Call for penetration point of L. Cherry Canyon:

1,835' FNL & 660' FWL, Sec. 36, T24S-R29E

Project Area for wellbore:

SE/4 NE/4 and E/2 SE/4 of Section 36

BEPCO, L.P. Lease:

BEPCO, L.P. has oil & gas leases covering all acreage surrounding the project area except for the E/2 Sec 1, T25S, R29E which is not being

encroached upon. (See attached map).

Based on our discussion, this information is being provided for you in order to facilitate the permitting of the well and initiation of production without a formal NSL application.

Thank you very much and should you have any questions or comments in the above regard, please don't hesitate to call me at (432) 683-2277.

Very truly yours,

Gary Gerhard Drilling Engineer

cc: Bryan Arrant

MMA MMA DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

#### State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 1220 St. Francis Dr., Santa Fe, NM 87505 OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

ſ	API Number	Pool Code	Pool Name				
١		47545	NASH DRAW; DELAWARE/BONE SP	RING (AVALON SD)			
Ī	Property Code	<del>-</del>	erty Name	Well Number			
	V 7100	HORNED TO	AD "36" STATE	1H			
Γ	OGRID No.	Oper	ator Name	Elevation			
	001801	BEPC	00, L.P.	3130'			

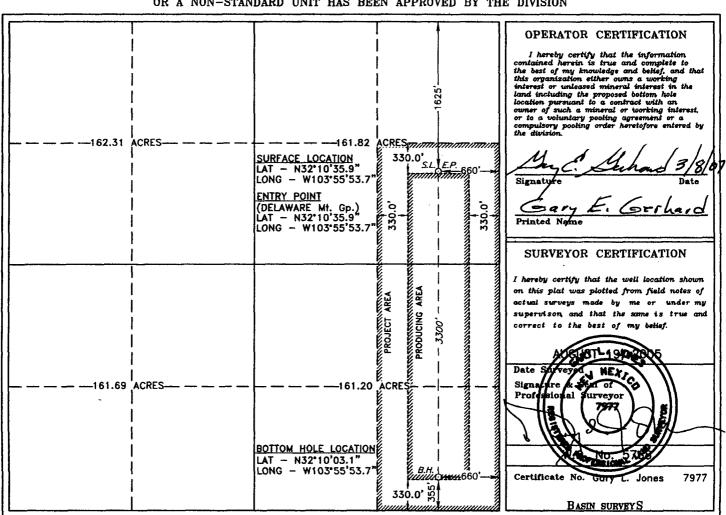
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
н	36	24 S	29 E		1625	NORTH	660	EAST	EDDY

#### 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			
P	36	24 S	29 E		355	SOUTH	660	EAST	EDDY			
Dedicated Acres   Joint or Infill   Consolidation Code					der No.				<u> </u>			
120		N			ENTRY P	OINT - DELAY	WARE Mt. Gp	) <b>.</b>				

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



Pistrict I'
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

RECEIVED

Form C-101 May 27, 2004

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

SEP 1 4 305 in to appropriate District Office OCD-ARTESIA 

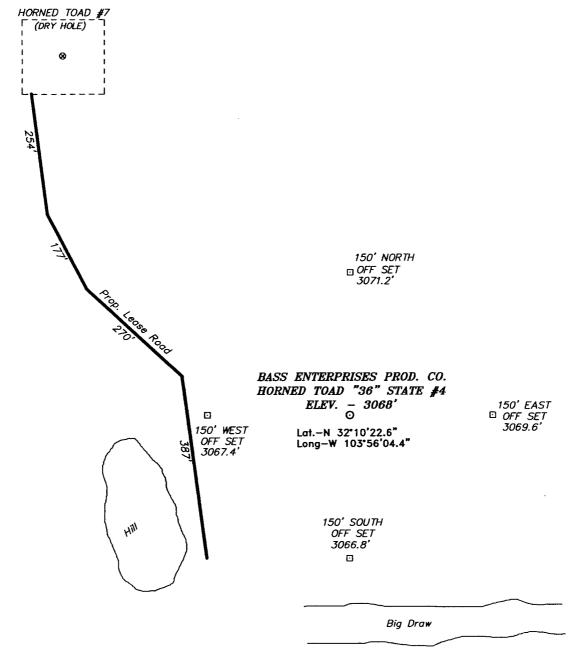
AMENDED REPORT

APPLICAT	IONFO	R PERMI	T TO D	RIL	L, RE-	ENTI	ER, DI	EEPE	N, PLUG	BACI	K,OR	AD	D A ZONE
Bass Enterprises Pr	roduction	OperatorNam	e and Addre	ess					001801		OGRIDN		r
P. O. Box 2760 Midland, TX 79702									30-	015.	API Nu	mber 7 6	4
<sup>3</sup> PropertyCode <sup>5</sup> Propert						Name		,	<u> </u>	Ť		* Wel	
35100		HORNI	D TOAL	D 36 S	TATE_							1	
Carral Cangario	: ELAWAR	ProposedPool 1 E	13	360	9					* Propose	dPool 2		
Corra ( cargar)					urface	Locat	ion						
UL or lot no. Section 36	Township 24S	Range 29E	Lot		Feet fro 1625'			outh line TH	Feet from t		East/West	line	County EDDY
		<sup>8</sup> Prop	osedBot	tom Ho	ole Loca	tion If l	Differe	nt From	Surface				
UL or lot no. Section	Township	Range	Lot		Feet fre			outh line	Feet from t	he l	East/West	line	County
<u> </u>	· • · · · · · · · · · · · · · · · · · ·		A	dditio	nal We	ell Info	ormati						
Work Type Code	0	12 Well Type Co	ode	R	13 Cable	e/Rolary			Lease Type Co	ode	1	" Grou O' GL	nd Level Elevation
N  16 Multiple		17 Proposed De	pth		18 For	mation		S	19 Contractor		1 313		Spud Date
NO	780	-			AWAR			ADOE	E DRILLI				/2005
Depth to Groundwater	150'		Distance	cefromn	earestfres	h water v 2-	vell 1/2 mil	es	Distan	ce from ne	arestsuri		ter niles
Pit: Liner: Synthetic		nilsthick Clay	Pit Vo	lume <u>: 1</u> 1	500bbis			ngMetho	d:				
Closed-Loop Sys	tem 🗆						Fresh V	Vater X	Brine X Di	esel/Ol-b	ased X	Gas/A	sir 🗆
		2	<sup>1</sup> Propo	sed C	asing a	nd Ce	ment	Progra	m				
Hole Size	<del></del>	sing Size		g weigh	t/foot	Setting Depth Sacks of Ce			of Ceme				
14-3/4"	11-3/4"		42#			790'		480			SURFACE*		
11"	8-5/8"		32#	174		3340'		1026			1000'		
7-7/8"	5-1/2"		15.5 &	1 /#		7800'		750			3040'		
	<u> </u>	<del></del>	l						<b>†</b>	<del>;</del>			
<sup>2</sup> Describe the proposed	i program. I	fthis application	is to DEEP	EN or P	LUG BAC	CK, give	the data o	n the pre	sent productiv	ezone an	d propos	ed new	productive zone.
Describe the blowout pre SURFACE IS OWN							פו מדו	ח מכו ג	I ING PR	OGNOS	וא פוס	ו א בחו	B∪D
DIAGRAM. This is	an unorth	odox location	1.										
*Bass proposes to di the total depth and c	rill 10' into	the salt secti	on to ins	ure all	zones a	bove tl	ne salt a	re pene	trated. The	casing	will be	set 1	0'-20' above
* *This intermediate	casing is	a contingency	string to	be in	stalled o	only if	we enco	ounter "	free flowin	g sand"	as was	foun	d in our Poker
Lake Unit #217 loca	ated in sec	tion 19, T248	S.R30E. I	n Pok	er Lake	Unit #2	217 this	sand o	ccured at se	everal d	epths (	+ 150	00'. + 1800'. +
1950',+ 2300') and we exceeded the low fra	ve were of ic gradient	t in the Delaw	are Lowe	er Brus	shy Can	von Sa	a nign nds. Th	vis arii erefore	nng nung w . the 11" ca	nich wi sing is t	m me r propose	esulta ed in	ant mud weight order to put
this problem behind	pipe and t	thereby allow	for the d	rilling	of the I	)elawa:	re Sand	s with a	fresh wate	r low w	eight d	rilling	g fluid If the
flowing sand probler production hole drill	m is not ei led with a	icountered the brine water/d	e interine iesel emu	diate c	asing w mud. Th	iii not is drill	oe run. ing flui	Hole Si d has be	ze will be r en used su	educed cessfull	to 7-7/ v hv B:	8" an acc in	d the the (Nash
Draw) Delaware Fie	ld.						8 2.141	- 1140 0	4504 54	00001411	, 0, 5	433 111	110 (1143)
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of my knowledge and belief. I further certify that the drilling pit will be							/	OIL	ONSER	VATI(	IGMC	VISI	ON
constructed according to NMOCD guidelines , a general permit , or A						Appro	ved by:	1	ann c			-	re .
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	Goodman			<del></del>		Title:		÷.		<del></del>	0		
	tion Clerk				· ·	Appro	val Date:	APR 0	5 2006	Expi	ration Da	ite:	PR 0 5 2007
E-mail Address: cdgood	iman@ba	sspet.com									<del></del>		0 0 2001
Date: 09/08/2005		Phone:	(432)683	-2277		Condit	ionsof A	pproval A	ttached 🔲				

NSL - 5358

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# SECTION 36, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 128 AND CO. RD. 793, GO SOUTH 10.2 MILES TO CO. RD. 748; THENCE SOUTH 1.5 MILE TO LEASE ROAD; THENCE SOUTH FOR 0.5 MILE; THENCE WEST FOR 1.6 MILE TO DRY HOLE AND PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 5652 | Drawn By: K. GOAD

Date: 08-24-2005 | Disk: KJG CD#7 - 5652A.DWG

100 0 100 200 FEET

SCALE: 1" = 100'

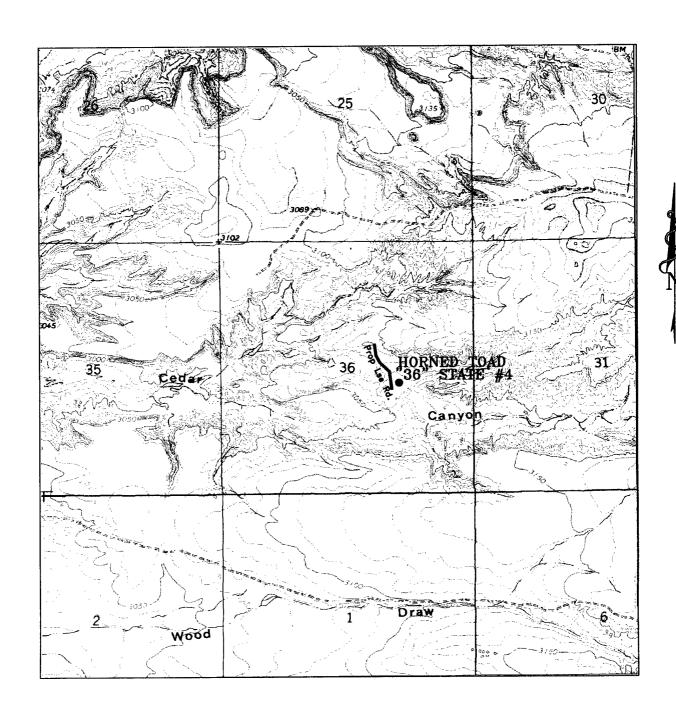
# BASS ENTERPRISES PRODUCTION CO.

REF: HORNED TOAD "36" STATE No. 4 / Well Pad Topo
THE HORNED TOAD "36" STATE No. 4 LOCATED 2310' FROM
THE SOUTH LINE AND 1575' FROM THE EAST LINE OF
SECTION 36, TOWNSHIP 24 SOUTH, RANGE 29 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Sheets

Survey Date: 08-23-2005 | Sheet 1 of



HORNED TOAD "36" STATE #4
Located at 2310' FSL and 1575' FEL
Section 36, Township 24 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.

Date: 08-24-2005



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number:	5652AA — KJG #7
Survey Date:	08-23-2005
Scale: 1" = 20	000,

BASS ENTERPRISES PRODUCTION CO.

# EIGHT POINT DRILLING PROGRAM BASS ENTERPRISES PRODUCTION CO.

NAME OF WELL: HORNED TOAD 36 STATE #4

LEGAL DESCRIPTION - SURFACE: 2310' FSL & 1575' FEL, Section 36, T-24-S, R-29-E, Eddy County, New Mexico.

#### **POINT 1: ESTIMATED FORMATION TOPS**

(See No. 2 Below)

# POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3085' (est)

GL 3068'

<u>FORMATION</u>	ESTIMATED TOP FROM KB	ESTIMATED SUBSEA TOP	BEARING
T/Salt	985'	+ 2,100'	Barren
T/Lamar	3,260'	- 175'	Barren
T/Lwr Brushy Canyon	6,835'	- 3,750'	Oil/Gas
TD	7,800'	- 4,715'	

#### **POINT 3: CASING PROGRAM**

<u>TYPE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	CONDITION .
16"	0' – 60'	Conductor	Contractor Discretion
11-3/4", 42#, WC-50, ST&C	0' – 970'	Surface	New
8-5/8", 32#, WC-50, LT&C	0' - 3,275'	Intermediate	New (Contingent)
5-1/2", 15.50#, K-55, LT&C	0' - 6,400'	Production	New
5-1/2", 17#, K-55, LT&C	6,400' – 7,800'	Production	New

### POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

A BOPE consistant with API RP-53 will be nippled up on the surface casing head. The BOP stack, choke, kill lines, kelly cocks, inside BOP, etc. when installed on the surface casing head will be hydro-tested to 70% of internal yield pressure of casing or 1000 psig whichever is less with the rig pump. The BOPE when rigged up on the intermediate casing spool will be tested to 3000 psig by independent tester. In addition to the high pressure test, a low pressure (200 psig) test will be required. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) As required by well conditions

A function test to insure that the preventers are operating correctly will be performed on each trip.

#### **POINT 5: MUD PROGRAM**

<u>DEPTH</u>	MUD TYPE	WEIGHT	_FV_	<u>PV_</u>	YP	FL	<u>Ph</u>
0' – 970'	FW Spud Mud	8.5 - 9.2	45-35	NC _	NC	NC	10.0
970' - 3275'	BW	10.0	28-30	NC	NC	NC	9.5-10.5 **
3275' - 6000'	Fresh Water	8.4 - 8.9	28-30	NC	NC	NC	9.5-10.5 **
6000' - 6900'	FW/Starch	8.7 - 8.9	30-35	4	8	<100	9.5-10.5 **
6900' – 7800'	FW/Starch	8.7 - 8.9	40-45	4	8	<25	9.5-10.5 **

<sup>\*</sup>Will increase vis for logging purposes only.

# **POINT 6: TECHNICAL STAGES OF OPERATION**

A) TESTING

None anticipated.

B) LOGGING

GR-CNL-LDT-LLD from TD to Base of Salt (+/-3,322'). Run GR-CNL from Base of Salt to surface.

C) CONVENTIONAL CORING

None anticipated.

# D) CEMENT

INTERVAL	AMOUNT SXS	FT OF FILL	TYPE	GALS/SX	PPG	FT <sup>3</sup> /SX			
SURFACE: Circulate cement to surface.									
Lead 0'-500' (100% excess)	230	500	Permian Basin Critical Zone	10.40	12.8	1.90			
Tail 500' – 990 (100% excess)	365	490	Premium Plus+2% CaClz 1/4# Flocele	6.33	14.8	1.35			
INTERMEDIATE: (Co Lead 1000'-2800' (200% excess)	ontingent) 575	1800	Interfill C+0.3% Halad R-322	14.11	11.9	2.45			
Tail 2800' - 3260 (200% excess)	300	500	Premium Plus+2% CaClz	6.33	14.8	1.35			
PRODUCTION:						COMPRESSIVE			
Lead 3260'-7800' (50% excess)	900	4600	Premium Plus + 1% Zone Sealant 2000	6.32	11.9	Nitrogen Strength 1.65 300/600 1200 scf/bbl			

# E) DIRECTIONAL DRILLING

No directional services anticipated.

<sup>\*\*</sup> If there is no intermediate casing set @ 3275', the drilling fluid will be 10 ppg BW to 5600' where it will be converted to BW/Diesel with properties as follows: 8.8 ppg, 32 – 40 funnel secs vis, YP2, PV 8, FL 25 cc or less, Ph 9.5 – 10.

# **POINT 7: ANTICIPATED RESERVOIR CONDITIONS**

Normal pressures are anticipated throughout Delaware section. A BHP of 3322 psi (max) or MWE of 8.7 ppg is expected. Lost circulation may exist in the Delaware section from 3,260'-7,800'. No  $H_2S$  is anticipated.

Estimated BHT is 140° F.

#### **POINT 8: OTHER PERTINENT INFORMATION**

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

12 days drilling operations

14 days completion operations

OCL/cdg

# Arrant, Bryan, EMNRD

From: Arrant, Bryan, EMNRD

Sent: Friday, March 23, 2007 10:52 AM

To: Brooks, David K., EMNRD

Cc: 'Brad Glasscock'

**Subject:** Horned Toad 36 State # 1H/API # 30-015-34764

# David,

I believe this NSL application needs to go in the Nash Draw; Delaware/Bone Spring (Avalon Sand) Oil Pool. The code # is: 47545 The surface location is within the boundaries of this pool.

Thanks,

Bryan Arrant