MF113061

6495 - exp 11-5-14
6763
7222
#06763

State Lease	Control	Base File	County
MF113061	07-032739	133930	CULBERSON
MF113061	07-032775	104292	CULBERSON
MF113061	07-032784	103302	CULBERSON
MF113061	07-032793	135390	CULBERSON

Survey	PUBLIC SCHOOL LAND	
Block	113	
Block Name		
Township		
Section/Tract	10, 14, 15, 16, 21, 22	
Land Part		
Part Description		
Acres	3520	
Depth Below	*Depth Above*	*Depth Other*

Leasing:
Analyst:
Maps:
GIS: MC
DocuShare:

Name	JOHNSON, CLAY
Lease Date	7/10/2011
Primary Term	5 yrs
Bonus ($)	$572,880.00
Rental ($)	$0.00
Lease Royalty	0.1250

STOP

CAUTION

Documents in this file have been placed in Table of Contents order and scanned.
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See MF111132 #47 Surface Damage 5/12/23
Scanned sm 05/30/2023
See MF111132 #48 Recorded Copy Clarification And Correction of Amended Unit Agreement #06763 Horseshoe Springs State Unit 6/7/23
scanned pf 6-14-2023
See MF111132 #50 Designation of Retained Tracts Horseshoe Springs State Unit ODA #4
scanned WM 2.27.2024
58. Surface Damage Pmt 6/21/2024

→ over

59. Surface Damage Pmt 6/21/2024

Scanned sm 06/28/2024

RAL REVIEW SHEET

Transaction # 7365 **Geologist:** R. Widmayer

Lessor: Barron, Mary Jane, Individually and as Trustee of the Mary **Lease Date:** 7/20/2011 **UL** ☐

Lessee: Clay Johnson **Gross Acres:** 3520

Net Acres: 880

LEASE DESCRIPTION

County	PIN#	Base File No	Part	Sec.	Block	Twp	Survey	Abst#
CULBERSON	07-032739	133938	ALL	10	113	00	PUBLIC SCHOOL LAND	5093
CULBERSON	07-032775	104292	W/2	14	113	00	PUBLIC SCHOOL LAND	1271
CULBERSON	07-032784	103302	ALL	15	113	00	PUBLIC SCHOOL LAND	1266
CULBERSON	07-032793	135390	ALL	16	113	00	PUBLIC SCHOOL LAND	5115
CULBERSON	07-032828	100592	ALL	21	113	00	PUBLIC SCHOOL LAND	1854
	07-032857							

TERMS OFFERED		TERMS RECOMMENDED	
Primary Term:	5 years	**Primary Term**	5 years
Bonus/Acre:	$1,300.00	**Bonus/Acre**	$1,300.00
Rental/Acre:	$1.00	**Rental/Acre**	$1.00
Royalty:	1/4	**Royalty**	1/4

COMPARISONS

MF #	Lessee	Date	Term	Bonus/Ac.	Rental/Ac.	Royalty	Distance
MF109588	Hallwood Energy, II, LP	7/28/2008	3 years	$400.00	$1.00	1/4	Last Lease
Pending	Thunderhead Petroleum	1-11-11	5Y-S	$700.00	$1.00	1/4	Adjacent North

Comments: Also All of Section 22, Block 113. Rentals paid for years 2 & 3. 4 to pay 5 at $1302.00.

Approved: 7/27/11

Wednesday, July 27, 2011

RELINQUISHMENT ACT LEASE APPLICATION

Texas General Land Office — Jerry Patterson, Commissioner

TO: Jerry Patterson, Commissioner
Larry Laine, Chief Clerk
Bill Warnick, General Counsel
Louis Renaud, Deputy Commissioner

DATE: 27-Jul-11

FROM: Robert Hatter, Director of Mineral Leasing
Tracey Throckmorton, Geoscience Manager

Applicant:	Clay Johnson	County:	CULBERSON
Prim. Term:	5 years	Bonus/Acre	$1,300.00
Royalty:	1/4	Rental/Acre	$1.00

Consideration

Recommended: m Date: 7/27/11

Not Recommended: _____

Comments: Also All of Section 22, Block 113. Rentals paid for years 2 & 3. 4 to pay 5 at $1302.00.

Lease Form

Recommended: RM Date: 7/29/11

Not Recommended: _____

Comments:

Louis Renaud, Deputy Commissioner Date: 8-15-11

Recommended: LLR

Not Recommended: _____

Bill Warnick, General Counsel Date: 8/16/11

Recommended: WFW

Not Recommended: _____

Larry Laine, Chief Clerk Date: 8/16/11

Approved: _____

Not Approved: _____

Jerry Patterson, Commissioner Date: 8/17/2011

Approved: Jerry E. Patterson

Not Approved: _____

(1)

File No. 113061

Lease RAL Review Sheet

Date Filed: 7/27/14

Jerry E. Patterson, Commissioner

By OH

Rentals Paid for 2nd & 3rd yr
4th yr Rental $1300.00 per tract
Pay 5th yr

#67163

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

OIL AND GAS LEASE

MF 113061A

THIS AGREEMENT is made and entered into this 20th day of July, 2011, between the State of Texas, acting by and through its agent, **Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92** of 10 Rio Bonito Circle, Roswell, New Mexico 88201 said agent

(Give Permanent Address)

herein referred to as the owner of the soil (whether one or more), and **CLAY JOHNSON** of 203 W. Wall, Suite 202 Midland, Texas 79701

(Give Permanent Address)

hereinafter called Lessee.

1. GRANTING CLAUSE For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power Stations, telephone lines and other Structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Culberson County, State of Texas, to-wit:

Block 113, Public School Land Survey

Section 10: All
Section 14: W/2
Section 15: All
Section 16: All
Section 21: All
Section 22: All

Containing 3,520.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Five Hundred Seventy-two Thousand Eight Hundred Eighty and No/100---------- Dollars ($ 572,880.00)

To the owner of the soil: Five Hundred Seventy-two Thousand Eight Hundred Eighty and No/100---------- Dollars ($ 572,880.00)

Total bonus consideration: One Million One Hundred Forty-five Thousand Seven Hundred Sixty and No/100---- Dollars ($ 1,145,760.00)

The total bonus consideration paid represents a bonus of One Thousand Three Hundred Two and No/100---------- Dollars ($ 1,302.00) per acre, on 880.00 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of Five (5) years from this date (herein called primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the Pay direct to Lessor at the above address Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:

To the owner of the soil: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

To the State of Texas: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

Total Rental: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.

4. PRODUCTION ROYALTIES Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be **1/4th** part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived in writing by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be **1/4th** part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be **1/4th** part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent (50%) or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be casinghead, "dry," or any other gas, by fractionating, burning or any other processing shall be **1/4th** part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of l0% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year, such interest will begin accruing when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional well are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (l/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is in an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments

which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.153, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency. or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and right-of-ways for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16(A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for watertlood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this l20-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to

pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;

(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;

(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;

(4) a principal stockholder or employee of the corporation which is the owner of the soil;

(5) a partner or employee in a partnership which is the owner of the soil;

(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or

(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court

proceedings in the manner provided in the Title I, Chapter 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.153. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDENINIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (I) A VIOLATION OF THE FOREGOING PROHIBITION OR (II) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

40. See attached Exhibit "A" for additional provisions.

Clay Johnson

Clay Johnson

Date: July 29, 2011

STATE OF TEXAS

BY: Mary Jane Barron
Individually and as agent for the State of Texas
Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

DATE: July 27th 2011

STATE OF TEXAS

BY: Mary Jane Barron
Individually and as agent for the State of Texas

DATE: July 27th 2011

STATE OF TEXAS **(INDIVIDUAL ACKNOWLEDGMENT)**

COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared **Clay Johnson** known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the 29th day of July, 2011.

NATHAN SYKES
Notary Public in and for the State of TEXAS

NATHAN SYKES
Notary Public, State of Texas
My Commission Expires
June 27, 2015

STATE OF **(INDIVIDUAL ACKNOWLEDGMENT)**

COUNTY OF

Before me, the undersigned authority, on this day personally appeared **Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92** known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the 27 day of July, 2011.

Notary Public in and for the State of Washington

KACEY L SOUKI
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
DECEMBER 15, 2013

EXHIBIT "A"

ATTACHED TO AND MADE PART OF THAT CERTAIN OIL AND GAS LEASE DATED JULY 20, 2011, BY AND BETWEEN THE STATE OF TEXAS, ACTING BY AND THROUGH ITS AGENT, MARY JANE BARRON, INDIVIDUALLY AND AS TRUSTEE OF THE MARY JANE BARRON REVOCABLE LIVING TRUST U/T/A DATED 07/27/92, AS LESSOR, AND CLAY JOHNSON, AS LESSEE

1. If, at the expiration of the primary term, this lease is being maintained in force under any provision of the lease, or within 180 days prior to the expiration of the primary term Lessee has completed a well as a dry hole or commenced a well on the leased premises or lands pooled therewith, or Lessee is then engaged in operations on the leased premises or lands pooled therewith, Lessee agrees to begin a continuous drilling program within 180 days after the end of the primary term or within 180 days after completion of such well or the cessation of such operations, whichever is the later date; and thereafter to carry on the continuous drilling program on the leased premises or lands pooled therewith until all proration units have been drilled, allowing not more than 180 days to elapse between the completion of one well and the commencement of the succeeding well. Should Lessee fail to begin the continuous drilling program or subsequently default in the performance thereof, then in either event, this lease shall terminate as to all lands covered hereby, save and except for the proration unit surrounding each well then producing, capable of producing or upon which operations are being conducted, limited, respectively, to those depths from the surface down to the stratigraphic equivalent of the depth 100 feet below the total depth drilled in any such proration unit. As used in this paragraph: i) the term "commission" means the Railroad Commission of the State of Texas or any successor agency, ii) the term "proration unit" means any acreage designated as a drilling unit or production unit in accordance with the rules of the commission (or any other governmental authority having jurisdiction) or any unit formed by pooling as provided in this lease or otherwise, iii) the terms "commenced" and "commencement" mean the date when a well is spudded, and iv) the terms "completed" and "completion" mean the date the initial potential test report is filed with the commission, if a productive well, or the date the plugging report is filed with the commission, if a dry hole. Notwithstanding the partial termination of this lease, Lessee shall continue to have the rights of ingress and egress across all of the leased premises to and from lands that remain subject to this lease, or lands pooled therewith, for the purposes described in paragraph 1 hereof, together with easements and rights of way for roads, pipelines, flowlines and other facilities on or across all of the leased premises for the exploration, development, production, gathering or transportation of oil, gas and other products from the lands still subject to this lease or lands pooled therewith. The sole liability or penalty for the failure of Lessee to drill any well or wells required or permitted by this lease shall be the termination or partial termination of Lessee's rights under the lease as provided above.

2. Notwithstanding anything to the contrary contained in Paragraph Three (3) of this Lease, for all purposes this lease shall be a fully Paid-Up Oil & Gas Lease for the first three years. Delay Rentals have been paid in full with the Bonus Consideration tendered herein. Delay Rental payment was based on a $1.00 per net mineral acre per year for Two (2) Years. Concluding a $2.00 per acre Pd-Up Rental Payment was made in advance for the Two (2) Year Period on the net mineral acres indicated in this Lease.

3. PAYMENTS OF MINIMUM ROYALTY AND SHUT-IN ROYALTY. Paragraph 5 (minimum Royalty) and Paragraph 14 (Shut in Royalty) contains a reference to a computation based upon the delay rental amount specified in Paragraph 3. However, notwithstanding anything contained herein to the contrary, the undersigned do hereby recognize, acknowledge and agree that i) all minimum royalty payments due pursuant to Paragraph 5 shall be calculated on the basis of the delay rental amount being one dollar ($1.00) per acre, and ii) all shut-in royalty payments due pursuant to Paragraph 14 shall be calculated on the basis of double the annual rental amount of one dollar ($1.00) per acre (being two dollars ($2.00) per acre), but not less than $1200.00 a year for each well capable of producing oil and gas in paying quantities.

4. The rentals for the 1st anniversary date and for the 2nd anniversary date have been pre-paid with the bonus for this lease and no additional payments for the 1st anniversary date and for the 2nd anniversary date are due and payable. The total payment to the State and to the owner of the soil is $1,302.00 per acre. The state and the owner of the soil have split the total payment of $1,302.00 per acre equally.

If delay rentals are paid on or before the 3rd anniversary date, the total rental paid shall be $1,144,880.00.

Said payment will include a pre-payment for the delay rentals for the 4th anniversary date.

Payments shall be made as follows: To the owner of the soil: $572,440.00

To the State of Texas: $572,440.00

File No. 113061

lease

Date Filed: 7/20/11

Jerry E. Patterson, Commissioner

By GH

#67163

oil & gas lease

"FILED FOR RECORD"
AT 9:23 O'CLOCK A M.

Aug 4, 2011

Chris McDonnell
County Clerk, Culberson County, Tx
BY Lucero Deputy DEPUTY

8-30-11

CLAY JOHNSON

Texas Ge[redacted]al Land Office

14817

8/25/2011

25.00

X

121

11715451

FIRST NATIONAL CH Filing Fee - Legend Nat'l Gas

25.00

CLAY JOHNSON

14697

General Land Office - State of Texas

7/20/2011

100.00

121

11713634

FIRST NATIONAL CH Approval Fee

100.00

WELLS FARGO

Wells Fargo Bank, N.A.
Corporate Trust Services
1031 Exchange Services
100 North Main Street
Winston-Salem, NC 27101

11715266

Check No: **1729728**

Mail To:

Texas General Land Office
1700 N. Congress Avenue
Suite 935
Austin TX 78701-1495 United States

Check No: **1729728**

Date: **August 22, 2011**

Paid To: Texas General Land Office

MF113061

For: **Lease Bonus for Mary Jane Barron Lease**
Block 113,PSL,
Sections 10,14,15,16,21,22

121

Check Amount: ****$572,880.00**

WELLS FARGO

1031 Exchange Services
Corporate Trust Services
100 North Main Street
Winston-Salem, NC 27101

Tel: 888 693 5566
Fax: 336 732 1031

August 22, 2011

Drew Reid
Texas General Land Office
1700 N. Congress Avenue, Suite 935
Austin, TX 78701-1495

RE: 1031 Like-Kind Exchange for Legend Natural Gas, LP
Account Number Ending 70000

Dear Mr. Reid:

Per a request from Legend Natural Gas IV, LP, we enclose an official check for $572,880.00 payable to Texas General Land Office. This check represents payment for lease bonus for Mary Jane Barron.

If you have any questions please call me at our toll free number 1-888-693-5566, extension 12.

Best regards,

Shara Craver

Shara Craver
Exchange Specialist

c: Michael Becci, Carl Wimberley (Letter Only)

Enclosure

Clay Johnson Oil & Gas Properties

203 WEST WALL, SUITE 202 * MIDLAND, TEXAS 79701 * (432) 684-4110 * FAX (432) 684-5166

AAPL-CPL

August 25, 2011

GENERAL LAND OFFICE
Stephen F. Austin Bldg.
1700 North Congress Ave.
Austin, TX 78701

Attn: Mr. Drew Reid

Re: Relinquishment Act Lease Culberson County, Texas

Dear Drew:

Find enclosed for your files and further handling a certified file stamped copy of the following described Relinquishment Act Oil and Gas Lease:

Oil and Gas Lease dated July 20, 2011, by and between The State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a 7/27/92, as Lessor and Clay Johnson, as Lessee, File Stamp 67163, Culberson County, Texas.

It is my understanding that Legend Natural Gas IV, LP, through Carl Wimberley, Vice President has sent you a payment for the State's 1/2 bonus due for the first 3 years for the above lease in the amount of $572,880.00.

To cover the required filing fees for handling this matter find enclosed Clay Johnson Check in the amount of $25.00 made payable to the order of General Land Office – State of Texas.

Respectfully,

Nate Sykes

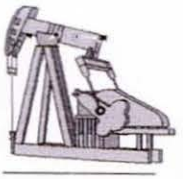
Nate Sykes

NWS/ns

Enclosures:

[redacted]y Johnson Oil & Gas Properties

203 WEST WALL, SUITE 202*MIDLAND, TEXAS 79701 *(432) 684-4110* FAX (432) 684-5166



AAPL-CPL

Drew

July 20, 2011

GENERAL LAND OFFICE
Mr. Drew Reed
Stephen F. Austin Bldg.
1700 North Congress Ave.
Austin, TX 78701

Re: Approval Request, Oil and Gas Leases,
3,520.00 acres out of Block 113, PSL Survey
Culberson County, Texas

Dear Drew:

The Deed Records of Culberson County, Texas indicate that Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a/ dated 07/27/92 owns an undivided 1/4th surface interest under the above referenced lands, being 880.00 net surface acres.

A trade has recently been made for an Oil and Gas Lease covering the above lands based on the following terms: $1,302.00 (rentals paid up for the first 3 years) per net mineral acre for bonus consideration, 1/4th royalty for a Five (5) year term with escalated rentals of $1,301.00 per acre (rentals paid up for the 4th year) for the third year rentals.

I have enclosed a copy of the lease for the approval of the General Land Office, as well as a personal check in the amount of $100.00 for the States processing fee.

If you have any questions please advise. Your prompt and favorable response will be greatly appreciated. Thank you for your time and consideration on this matter.

Respectfully,

M. K. Brasuel

Mary Kay Brasuel

Enclosures:

(3)

File No. 113061

Cover Letter & Bonds & Fees

Date Filed: 8/29/11

Jerry E. Patterson, Commissioner

By GH

TEXAS GENERAL LAND OFFICE

JERRY PATTERSON, COMMISSIONER

May 7, 2012

Nate Sykes
Clay Johnson Oil & Gas
203 W. Wall, Suite 202
Midland, Texas 79701

Re: **State Lease MF 113061A**

RAL Lease dated July 20, 2011 recorded in Doc. 67163,covering 880 net ac. out of 3520 gross ac being Sec. 10, W/2 14, 15, 16, 21, 22, Blk. 113, PSL Survey, Culberson Co. TX, Mary Jane Barron Revocable Living Trust, et al, agents for State of TX, Lessors

Dear Mr. Sykes:

The certified copy of the Relinquishment Act lease covering the above referenced tract has been approved and filed in our records under Mineral File numbers **MF-113061A. Please refer to this lease number when making payments to the State and in all future correspondence concerning the lease. Failure to include the mineral file number may delay processing of any payments towards the lease.**

There are several contractual and statutory responsibilities for the Lessee which are material provisions of the lease as outlined in the agreement such as Section 10(B) which requires submission of written notice for all drilling, production and related activities. When forms are filed with the Texas Railroad Commission, they are required to be submitted to the General Land Office as well. Examples are W-1, Application to Drill; W-2, Oil Well Completion Report and Log; G-1, Gas Well Completion Report and Log; W-3, Plugging Report; G-5, Gas Well Classification Report; G-10, Gas Well Status Report; W-10, Oil Well Status Report; W-12, Inclination Report; electric logs; directional surveys.

Chapter 52 of the Texas Natural Resources Codes specifies that the surface owner's right to receive a portion of the revenues generated by the lease shall be in lieu of all damages to the soil. Therefore, any payments made for surface use or damages other than the authorized damages set out in the lease form must be shared equally with the state.

Your remittance of **$572,880.00** has been applied to the State's portion of the cash bonus. In addition, we are in receipt of the processing and filing fees.

Sincerely yours,

Drew Reid

Drew Reid
Mineral Leasing, Energy Resources
(512) 475-1534
drew.reid@glo.texas.gov

(4)

File No. 113061

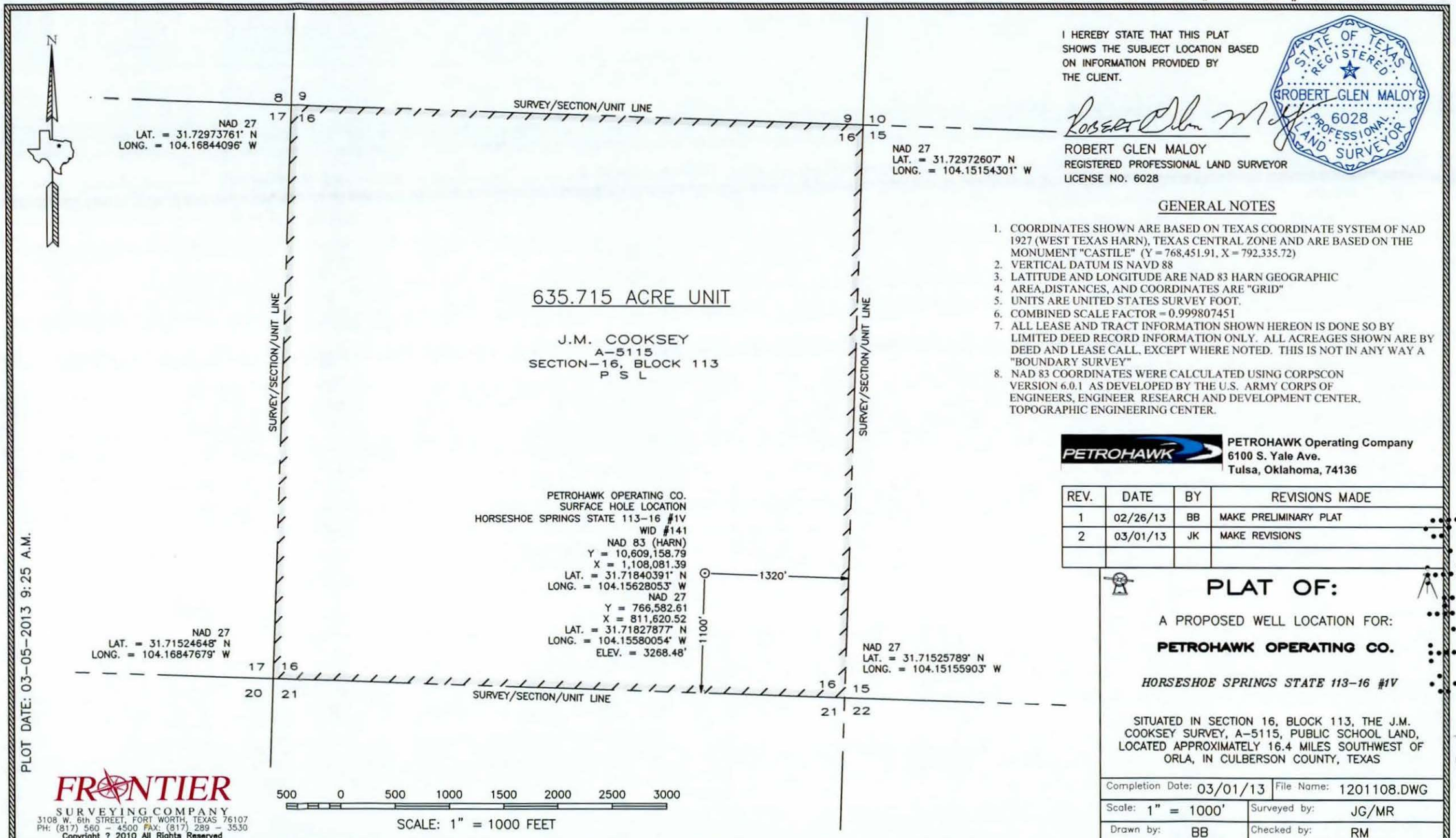
Final Letter

Date Filed: 5/7/12

Jerry E. Patterson, Commissioner

By G-1

PERMIT PLAT WID #141 JOB #: 1201108



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

STATE OF TEXAS REGISTERED ROBERT GLEN MALOY 6028 PROFESSIONAL LAND SURVEYOR

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1927 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 768,451.91, X = 792,335.72)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 83 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

PETROHAWK

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

REV.	DATE	BY	REVISIONS MADE
1	02/26/13	BB	MAKE PRELIMINARY PLAT
2	03/01/13	JK	MAKE REVISIONS

PLAT OF:

A PROPOSED WELL LOCATION FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V

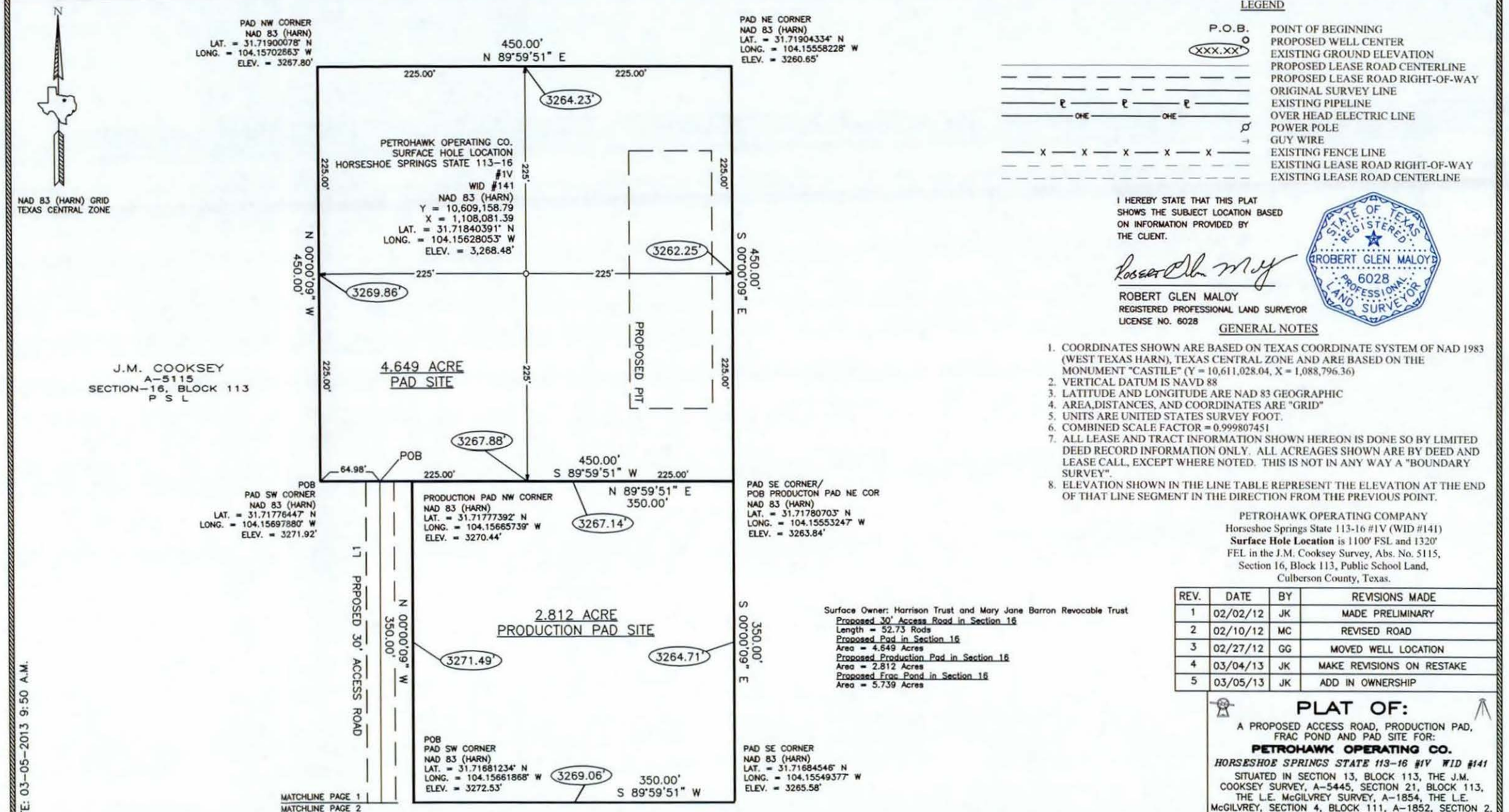
SITUATED IN SECTION 16, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5115, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 03/01/13		File Name:	1201108.DWG
Scale: 1" = 1000'		Surveyed by:	JG/MR
Drawn by:	BB	Checked by:	RM

PLOT DATE: 03-05-2013 9:25 A.M.

FRONTIER
SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
Copyright ? 2010 All Rights Reserved

1130191



LEGEND

P.O.B.	POINT OF BEGINNING
o	PROPOSED WELL CENTER
XXX.XX'	EXISTING GROUND ELEVATION
	PROPOSED LEASE ROAD CENTERLINE
	PROPOSED LEASE ROAD RIGHT-OF-WAY
	ORIGINAL SURVEY LINE
	EXISTING PIPELINE
OHE	OVER HEAD ELECTRIC LINE
	POWER POLE
	GUY WIRE
	EXISTING FENCE LINE
	EXISTING LEASE ROAD RIGHT-OF-WAY
	EXISTING LEASE ROAD CENTERLINE

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

STATE OF TEXAS
REGISTERED
ROBERT GLEN MALOY
6028
PROFESSIONAL
LAND SURVEYOR

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 10,611,028.04, X = 1,088,796.36)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".
8. ELEVATION SHOWN IN THE LINE TABLE REPRESENT THE ELEVATION AT THE END OF THAT LINE SEGMENT IN THE DIRECTION FROM THE PREVIOUS POINT.

PETROHAWK OPERATING COMPANY
Horseshoe Springs State 113-16 #1V (WID #141)
Surface Hole Location is 1100' FSL and 1320' FEL in the J.M. Cooksey Survey, Abs. No. 5115, Section 16, Block 113, Public School Land, Culberson County, Texas.

Surface Owner: Harrison Trust and Mary Jane Barron Revocable Trust
Proposed 30' Access Road in Section 16
Length = 52.73 Rods
Proposed Pad in Section 16
Area = 4.649 Acres
Proposed Production Pad in Section 16
Area = 2.812 Acres
Proposed Frac Pond in Section 16
Area = 5.739 Acres

REV.	DATE	BY	REVISIONS MADE
1	02/02/12	JK	MADE PRELIMINARY
2	02/10/12	MC	REVISED ROAD
3	02/27/12	GG	MOVED WELL LOCATION
4	03/04/13	JK	MAKE REVISIONS ON RESTAKE
5	03/05/13	JK	ADD IN OWNERSHIP

PLAT OF:

A PROPOSED ACCESS ROAD, PRODUCTION PAD, FRAC POND AND PAD SITE FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V WID #141

SITUATED IN SECTION 13, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5445, SECTION 21, BLOCK 113, THE L.E. McGILVREY SURVEY, A-1854, THE L.E. McGILVREY, SECTION 4, BLOCK 111, A-1852, SECTION 2, BLOCK 111, THE J. MASTERSON SURVEY, A-4368, AND THE FREEPORT McMORAN SULPHUR, LLC., SECTION 3, BLOCK 111, A-8845, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date:	03/05/13	File Name:	1201108.DWG
Scale:	1" = 100'	Surveyed by:	JG/MR
Drawn by:	JK	Checked by:	RM

CONTROLLING CORNERS TABLE NAD 83 (HARN)			
LOCATION	DESCRIPTION	NORTHING/Y	EASTING/X
SW COR SEC 16	CALCULATED CORNER	10,608,192.04	1,104,103.93
NE COR SEC 16	CALCULATED CORNER	10,613,275.01	1,109,547.39
SE COR SEC 16	CALCULATED CORNER	10,608,015.27	1,109,361.84
NW COR SEC 16	CALCULATED CORNER	10,613,459.88	1,104,296.72

50 0 50 100 150 200 250 300
SCALE: 1" = 100 FEET

PAGE 1 OF 4

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

FRONTIER SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530

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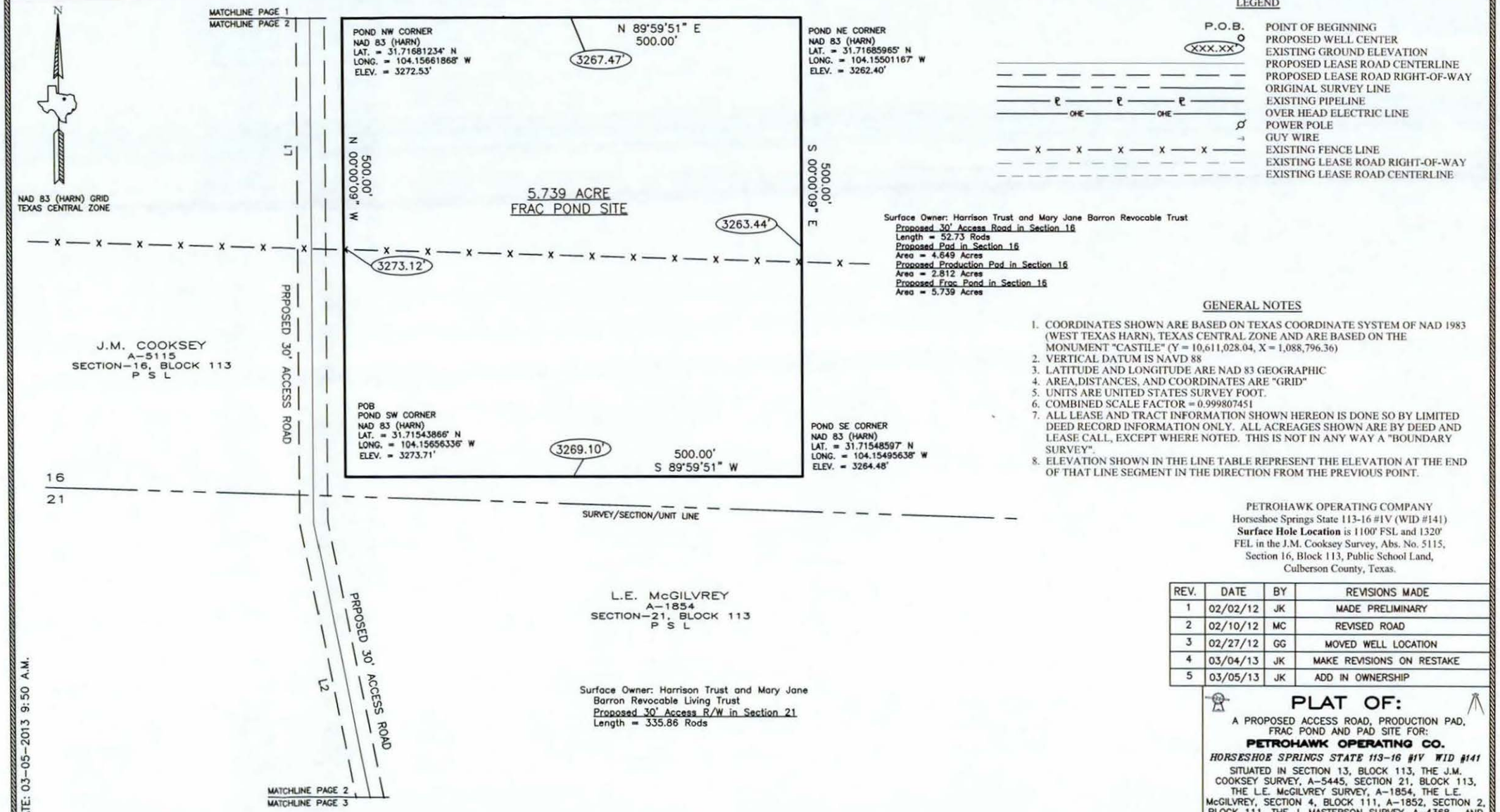
PLOT DATE: 03-05-2013 9:50 A.M.



Surface Owner: Harrison Trust and Mary Jane Barron Revocable Trust
Proposed 30' Access Road in Section 16
Length = 52.73 Rods
Proposed Pad in Section 16
Area = 4.649 Acres
Proposed Production Pad in Section 16
Area = 2.812 Acres
Proposed Frac Pond in Section 16
Area = 5.739 Acres

Surface Owner: Harrison Trust and Mary Jane Barron Revocable Living Trust
Proposed 30' Access R/W in Section 21
Length = 335.86 Rods

LEGEND

P.O.B.	POINT OF BEGINNING
o	PROPOSED WELL CENTER
XXX.XX'	EXISTING GROUND ELEVATION
	PROPOSED LEASE ROAD CENTERLINE
	PROPOSED LEASE ROAD RIGHT-OF-WAY
	ORIGINAL SURVEY LINE
℄ ℄ ℄	EXISTING PIPELINE
OHE OHE	OVER HEAD ELECTRIC LINE
	POWER POLE
	GUY WIRE
x x x x x	EXISTING FENCE LINE
	EXISTING LEASE ROAD RIGHT-OF-WAY
	EXISTING LEASE ROAD CENTERLINE

GENERAL NOTES

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PETROHAWK OPERATING COMPANY
Horseshoe Springs State 113-16 #1V (WID #141)
Surface Hole Location is 1100' FSL and 1320' FEL in the J.M. Cooksey Survey, Abs. No. 5115, Section 16, Block 113, Public School Land, Culberson County, Texas.

REV.	DATE	BY	REVISIONS MADE
1	02/02/12	JK	MADE PRELIMINARY
2	02/10/12	MC	REVISED ROAD
3	02/27/12	GG	MOVED WELL LOCATION
4	03/04/13	JK	MAKE REVISIONS ON RESTAKE
5	03/05/13	JK	ADD IN OWNERSHIP

PLAT OF:

A PROPOSED ACCESS ROAD, PRODUCTION PAD, FRAC POND AND PAD SITE FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V WID #141

SITUATED IN SECTION 13, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5445, SECTION 21, BLOCK 113, THE L.E. McGILVREY SURVEY, A-1854, THE L.E. McGILVREY, SECTION 4, BLOCK 111, A-1852, SECTION 2, BLOCK 111, THE J. MASTERSON SURVEY, A-4368, AND THE FREEPORT McMORAN SULPHUR, LLC., SECTION 3, BLOCK 111, A-8845, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 03/05/13		File Name:	1201108.DWG
Scale: 1" = 100'		Surveyed by:	JG/MR
Drawn by:	JK	Checked by:	RM

CONTROLLING CORNERS TABLE NAD 83 (HARN)			
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50 0 50 100 150 200 250 300
SCALE: 1" = 100 FEET

PLOT DATE: 03-05-2013 9:50 A.M.

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3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
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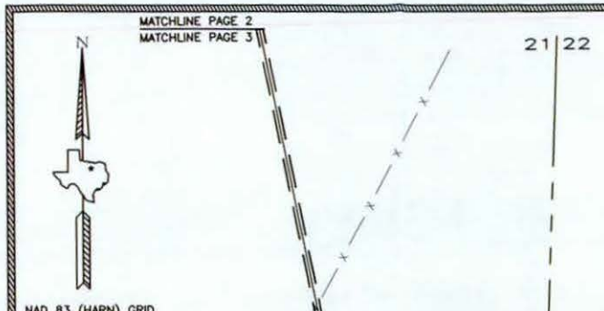
PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136



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SE COR SEC 16	CALCULATED CORNER	10,608,015.27	1,109,361.84
NW COR SEC 16	CALCULATED CORNER	10,613,459.88	1,104,296.72

LINE	BEARING	DISTANCE	ELEVATION	STATION
POB	N/A	N/A	3271.15'	0+00.00
SECTION LINE	N/A	N/A	N/A	8+70.09
L1	S 00°00'10" W	900.07'	3274.67'	9+00.07
L2	S 11°16'10" E	5314.25'	3291.91'	62+14.32
L3	S 19°33'38" E	162.03'	3291.45'	63+76.35
SECTION LINE	N/A	N/A	N/A	64+11.81
L4	S 54°58'20" E	71.69'	3290.53'	64+48.04
L5	S 88°51'25" E	40.14'	3290.73'	64+88.18
TERMINUS	N/A	N/A	3290.73'	64+88.18
SECTION LINE	N/A	N/A	N/A	65+47.00
SECTION LINE	N/A	N/A	N/A	118+36.59
L6	S 88°05'41" E	7239.89'	3211.42'	137+28.07
L7	S 53°13'38" E	935.69'	3211.50'	146+63.76
L8	N 81°37'14" E	700.35'	3201.55'	153+64.11
L9	N 83°29'52" E	118.05'	3201.87'	154+82.16
END OF SURVEY	N/A	N/A	3201.87'	154+82.16

LEGEND

P.O.B.	POINT OF BEGINNING
	PROPOSED WELL CENTER
XXX.XX'	EXISTING GROUND ELEVATION
	PROPOSED LEASE ROAD CENTERLINE
	PROPOSED LEASE ROAD RIGHT-OF-WAY
	ORIGINAL SURVEY LINE
	EXISTING PIPELINE
OHE	OVER HEAD ELECTRIC LINE
	POWER POLE
	GUY WIRE
	EXISTING FENCE LINE
	EXISTING LEASE ROAD RIGHT-OF-WAY
	EXISTING LEASE ROAD CENTERLINE

300 0 300 600 900 1200 1500 1800

SCALE: 1" = 600 FEET

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 10,611,028.04, X = 1,088,796.36)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".
8. ELEVATION SHOWN IN THE LINE TABLE REPRESENT THE ELEVATION AT THE END OF THAT LINE SEGMENT IN THE DIRECTION FROM THE PREVIOUS POINT.

PETROHAWK OPERATING COMPANY
Horseshoe Springs State 113-16 #1V (WID #141)
Surface Hole Location is 1100' FSL and 1320' FEL in the J.M. Cooksey Survey, Abs. No. 5115, Section 16, Block 113, Public School Land, Culberson County, Texas.

REV.	DATE	BY	REVISIONS MADE
1	02/02/12	JK	MADE PRELIMINARY
2	02/10/12	MC	REVISED ROAD
3	02/27/12	GG	MOVED WELL LOCATION
4	03/04/13	JK	MAKE REVISIONS ON RESTAKE
5	03/05/13	JK	ADD IN OWNERSHIP

PLAT OF:

A PROPOSED ACCESS ROAD, PRODUCTION PAD, FRAC POND AND PAD SITE FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V WID #141

SITUATED IN SECTION 13, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5445, SECTION 21, BLOCK 113, THE L.E. McGILVREY SURVEY, A-1854, THE L.E. McGILVREY, SECTION 4, BLOCK 111, A-1852, SECTION 2, BLOCK 111, THE J. MASTERSON SURVEY, A-4368, AND THE FREEPORT McMORAN SULPHUR, LLC., SECTION 3, BLOCK 111, A-8845, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 03/05/13	File Name: 1201108.DWG		
Scale: 1" = 600'	Surveyed by: JG/MR		
Drawn by: JK	Checked by: RM		

PLOT DATE: 03-05-2013 9:50 A.M.

FRONTIER SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
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PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

NAD 83 (HARN) GRID
TEXAS CENTRAL ZONE

4.649 ACRE PAD SITE

Being 4.649 acres of land out of the J.M. Cooksey Survey, Abstract Number 5115, Section 16, Block 113, the Public School Land, Culberson County, Texas and being more particularly described by metes and bounds as follows:

COMMENCING at a 5/8" found iron rod in rock mound, (Y = 10,613,288.46, X = 1,109,156.93) being in the North line of said Section 16, Block 113;

THENCE South 16°37'42" West, a distance of 4544.74 feet to the **POINT OF BEGINNING**, said point being the Southwest corner of said 4.649 acre pad site;

THENCE North 00°00'09" West, a distance of 450.00 feet to a calculated point at the Northwest corner of said pad site;

THENCE North 89°59'51" East, a distance of 450.00 feet to a calculated point at the Northeast corner of said pad site;

THENCE South 00°00'09" East, a distance of 450.00 feet to a calculated point at the Southeast corner of said pad site;

THENCE South 89°59'51" West, a distance of 450.00 feet to the **POINT OF BEGINNING** containing 4.649 acres, more or less

Centerline Description of a 30' Wide Access Road

Being 6488.18 linear feet of land out of the J.M. Cooksey Survey, Abstract Number 5115, Section 16, Block 113, the L.E. McGilvrey Survey, Abstract Number 1854, Section 21, Block 113, and the L.E. McGilvrey Survey, Abstract Number 1852, Section 4, Block 111, the Public School Land, Culberson County, Texas and being more particularly described by metes and bounds as follows:

COMMENCING at a 5/8" found iron rod in rock mound, (Y = 10,613,288.46, X = 1,109,156.93) being in the North line of said Section 16, Block 113;

THENCE South 16°37'42" West, a distance of 4544.74 feet to the Southwest corner of a proposed 4.649 acre pad site;

THENCE North 89°59'51" East, a distance of 64.98 feet with the South line of said pad to the **POINT OF BEGINNING** of a proposed 30' wide access road;

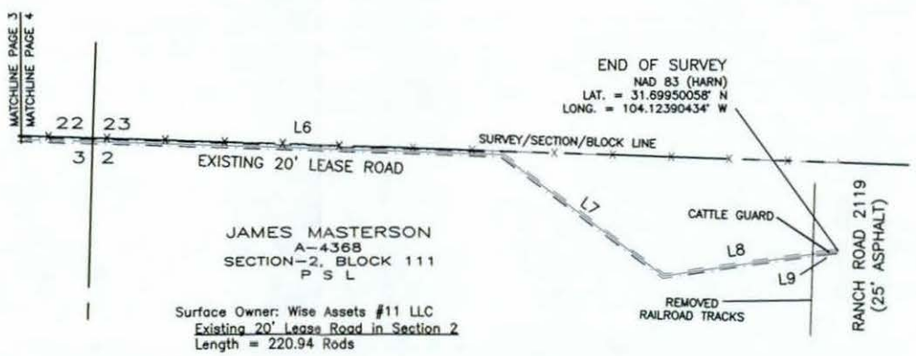
THENCE South 00°00'01" West, a distance of 900.07 feet to calculated point;

THENCE South 11°16'10" East, a distance of 5314.25 feet to calculated point;

THENCE South 19°33'38" East, a distance of 162.03 feet to calculated point;

THENCE South 54°58'20" East, a distance of 71.69 feet to calculated point;

THENCE South 88°51'25" East, a distance of 40.14 feet to the **POINT OF TERMINUS**, at an existing 20' wide gravel lease road. Being a distance of 6488.18 linear feet or 393.22 rods, more or less.



CONTROLLING CORNERS TABLE NAD 83 (HARN)			
LOCATION	DESCRIPTION	NORTHING/Y	EASTING/X
SW COR SEC 16	CALCULATED CORNER	10,608,192.04	1,104,103.93
NE COR SEC 16	CALCULATED CORNER	10,613,275.01	1,109,547.39
SE COR SEC 16	CALCULATED CORNER	10,608,015.27	1,109,361.84
NW COR SEC 16	CALCULATED CORNER	10,613,459.88	1,104,296.72

PLOT DATE: 03-05-2013 9:50 A.M.

FRONTIER
SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
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LEGEND

P.O.B.	POINT OF BEGINNING
o	PROPOSED WELL CENTER
XXX.XX	EXISTING GROUND ELEVATION
	PROPOSED LEASE ROAD CENTERLINE
	PROPOSED LEASE ROAD RIGHT-OF-WAY
	ORIGINAL SURVEY LINE
℄ ℄ ℄	EXISTING PIPELINE
OHE OHE	OVER HEAD ELECTRIC LINE
	POWER POLE
→	GUY WIRE
x x x x x	EXISTING FENCE LINE
	EXISTING LEASE ROAD RIGHT-OF-WAY
	EXISTING LEASE ROAD CENTERLINE

5.739 ACRE FRAC POND SITE

Being 5.739 acres of land out of the J.M. Cooksey Survey, Abstract Number 5115, Section 16, Block 113, the Public School Land, Culberson County, Texas and being more particularly described by metes and bounds as follows:

COMMENCING at a 5/8" found iron rod in rock mound, (Y = 10,613,288.46, X = 1,109,156.93) being in the North line of said Section 16, Block 113;

THENCE South 12°59'19" West, a distance of 5341.33 feet to the **POINT OF BEGINNING**, said point being the Southwest corner of said 5.739 acre frac pond site;

THENCE North 00°00'09" West, a distance of 500.00 feet to a calculated point at the Northwest corner of said pond site;

THENCE North 89°59'51" East, a distance of 500.00 feet to a calculated point at the Northeast corner of said pond site;

THENCE South 00°00'09" East, a distance of 500.00 feet to a calculated point at the Southeast corner of said pond site;

THENCE South 89°59'51" West, a distance of 500.00 feet to the **POINT OF BEGINNING** containing 5.739 acres, more or less

2.812 ACRE PRODUCTION PAD SITE

Being 2.812 acres of land out of the J.M. Cooksey Survey, Abstract Number 5115, Section 16, Block 113, the Public School Land, Culberson County, Texas and being more particularly described by metes and bounds as follows:

COMMENCING at a 5/8" found iron rod in rock mound, (Y = 10,613,288.46, X = 1,109,156.93) being in the North line of said Section 16, Block 113;

THENCE South 14°18'54" West, a distance of 4855.43 feet to the **POINT OF BEGINNING**, said point being the Southwest corner of said 2.812 acre production pad site;

THENCE North 00°00'09" West, a distance of 350.00 feet to a calculated point at the Northwest corner of said pad site;

THENCE North 89°59'51" East, a distance of 350.00 feet to a calculated point at the Northeast corner of said pad site;

THENCE South 00°00'09" East, a distance of 350.00 feet to a calculated point at the Southeast corner of said pad site;

THENCE South 89°59'51" West, a distance of 350.00 feet to the **POINT OF BEGINNING** containing 2.812 acres, more or less

300 0 300 600 900 1200 1500 1800

SCALE: 1" = 600 FEET

PETROHAWK OPERATING COMPANY
Horseshoe Springs State 113-16 #1V (WID #141)
Surface Hole Location is 1100' FSL and 1320' FEL in the J.M. Cooksey Survey, Abs. No. 5115, Section 16, Block 113, Public School Land, Culberson County, Texas.

REV.	DATE	BY	REVISIONS MADE
1	02/02/12	JK	MADE PRELIMINARY
2	02/10/12	MC	REVISED ROAD
3	02/27/12	GG	MOVED WELL LOCATION
4	03/04/13	JK	MAKE REVISIONS ON RESTAKE
5	03/05/13	JK	ADD IN OWNERSHIP

PLAT OF:

A PROPOSED ACCESS ROAD, PRODUCTION PAD, FRAC POND AND PAD SITE FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V WID #141

SITUATED IN SECTION 13, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5445, SECTION 21, BLOCK 113, THE L.E. McGILVREY SURVEY, A-1854, THE L.E. McGILVREY, SECTION 4, BLOCK 111, A-1852, SECTION 2, BLOCK 111, THE J. MASTERSON SURVEY, A-4368, AND THE FREEPORT McMORAN SULPHUR, LLC., SECTION 3, BLOCK 111, A-8845, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date:	03/05/13	File Name:	1201108.DWG
Scale:	1" = 600'	Surveyed by:	JG/MR
Drawn by:	JK	Checked by:	RM

PETROHAWK

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

5.

File No. MF 113061
lease plats: Horseshoe
Springs State 113-16 # 1V
Date Filed: 6/25/13
Jerry E. Patterson, Commissioner
By MBBarnstone

Harriet Dunne - BHP Mineral File Numbers Block 113, Culberson County

From: "Wright, Tiffany" <Tiffany.Wright@bhpbilliton.com>
To: "Harriet Dunne (harriet.dunne@glo.texas.gov)" <harriet.dunne@glo.texas.gov>
Date: 10/3/2013 9:08 AM
Subject: BHP Mineral File Numbers Block 113, Culberson County
Attachments: Picture (Device Independent Bitmap) 1.jpg

Hi Harriet,

Can you send me the mineral file numbers for the leases listed below or tell me where I can find them?

Surface Agent	Lessee	Lease Date	Section(s)	Block	
Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended	Legend Natural Gas IV, LP	July 29, 2011	15 & 22	113	MF113601A
Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended	Legend Natural Gas IV, LP	July 29, 2011	10 & 16	113	MF113596A
Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92	Clay Johnson	July 20, 2011	10, 14, 15, 16, 21 & 22	113	MF113061A

I greatly appreciate your help.

Thank you,

Tiffany Wright
Staff Landman – Permian
bhpbilliton
Resourcing the Future

1360 Post Oak Blvd.
Houston, TX 77056
Direct: (713) 297-6566
Mobile: (405)-623-3780

This message and any attached files may contain information that is confidential and/or subject of legal privilege intended only for use by the intended recipient. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, be advised that you have received this message in error and that any dissemination, copying or use of this message or attachment is strictly forbidden, as is the disclosure of the information therein. If you have received this message in error please notify the sender immediately and delete the message.

From: Susan Draughn
To: Tiffany.Wright@bhpbilliton.com
Date: 10/4/2013 2:59 PM
Subject: Fwd: BHP Mineral File Numbers Block 113, Culberson County
Attachments: Picture (Device Independent Bitmap) 1.jpg

Tiffany,

Please see below for lease numbers in blue.
Susan for Harriet.

Susan Draughn
Landman
Energy Resources/Mineral Leasing
Texas General Land Office
512/463-6521 Direct
email: susan.draughn@glo.texas.gov
>>> Harriet Dunne 10/4/2013 1:46 PM >>>
Susan,
Please respond to Tiffany's request below.

Thank you,
Harriet

>>> "Wright, Tiffany" <Tiffany.Wright@bhpbilliton.com> 10/3/2013 9:07 AM >>>

Hi Harriet,

Can you send me the mineral file numbers for the leases listed below or tell me where I can find them?

Surface AgentLesseeLease DateSection(s)Block
MF113601A
Roddy L. Harrison, Trustee of the Harrison Trust Under Trust

Indenture Dated 04/25/96, As AmendedLegend Natural Gas IV, LPJuly 29, 201115 & 22113
MF113596A
Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As AmendedLegend Natural Gas IV, LPJuly 29, 201110 & 16113
MF113061A
Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92Clay JohnsonJuly 20, 201110, 14, 15, 16, 21 & 22113

I greatly appreciate your help.

Thank you,

Tiffany Wright
Staff Landman - Permian

1360 Post Oak Blvd.
Houston, TX 77056
Direct: (713) 297-6566
Mobile: (405)-623-3780

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6.

File No. MF 113061
ID lease #'s for BHP

Date Filed: 10/3/13
Jerry E. Patterson, Commissioner

By SSD

TEXAS GENERAL LAND OFFICE
JERRY PATTERSON, COMMISSIONER

February 22, 2013

LeAnn Stutes
Exploration Land Services, LLC
PO Box 52105
Lafayette, LA 70505

RE: GLO Assignment ID # 8671

Dear Ms. Stutes,

The General Land Office received the following instrument(s) and has filed them in the appropriate files. Please see attached "Exhibit A" for reference.

> Assignment, Conveyance, Deed and Bill of Sale from Legend Natural Gas IV, L.P. as Assignor to Petrohawk Properties, L.P. as Assignee effective September 8th, 2011. Culberson County #67317

Filing fees of $450.00 were received in connection with the above assignment. If any you have questions, please feel free to contact me.

Sincerely,

Beverly Boyd

Beverly Boyd
Mineral Leasing
Energy Resources
512-463-6521

Exhibit "A"

GLO ID	*County*	*Lease*
8671	*Culberson*	MF113061
8671	*Culberson*	MF113596
8671	*Culberson*	MF113598
8671	*Culberson*	MF113599
8671	*Culberson*	MF113600
8671	*Culberson*	MF113601
8671	*Culberson*	MF113602
8671	*Culberson*	MF113603
8671	*Culberson*	MF113604

EXPLORATION LAND SERVICES, LLC
P O Box 52105 • Lafayette, Louisiana 70505-2105 • Phone: 337.234.3500 • Fax: 337.234.3525 • Email: contact@explorationland.com

February 1, 2013

Via FedEx

Ms. Beverly Boyd
Texas General Land Office
1700 Congress Avenue
Stephen F. Austin Building, Suite 640
Austin, Texas 78701

Re: Legend Natural Gas Assignment
Culberson County, Texas

Dear Beverly:

Enclosed herewith, please find one (1) certified copy of an assignment from Legend Natural Gas IV, LP to Petrohawk Properties, LP. Said assignment contains 9 Mineral File Number Tracts as shown on the attached spreadsheet. Also enclosed, please find a check in the amount of $450.00 which covers all filing fees for said assignment.

I trust that you will not hesitate to call me with any questions that you may have concerning this matter.

Sincerely yours,

LeAnn D. Stutes

encl.

EXPLORATION LAND SERVICES LLC

5092

Texas General Land Office

2/1/2013

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
2/1/2013	Bill	Filing&ProcessingFee	450.00	450.00		450.00
					Check Amount	450.00

Y

C

129X3706059

Iberia Bank

Filing Fee - 1 Assignment; Process Fee - 9 Tract

450.00

Doc# 00000067317

ASSIGNMENT, CONVEYANCE, DEED AND BILL OF SALE

This Assignment, Conveyance and Bill of Sale ("Assignment") is effective for all purposes as of 7:00 am Central Standard Time on September 8, 2011 ("Effective Date"), by Legend Natural Gas IV, LP, a Delaware limited partnerships ("Assignor") with an address of 410 West Grand Parkway South, Suite 400, Katy, Texas 77494, and Petrohawk Properties, LP, a Texas limited partnership ("Assignee") with an address of 6100 South Yale Avenue, Suite 500, Tulsa, Oklahoma 74136. Assignor and Assignee are hereinafter referred to individually as "Party" and collectively as "Parties".

Assignor, for valuable considerations, the receipt and sufficiency of which are hereby acknowledged, does by these presents GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER and DELIVER unto Assignee a fifty percent (50%) undivided interest (on an eight-eight's basis) in Assignor's right, title and interest in and to the following properties (such properties, the "Assets"): (i) the oil and gas leases, royalties, overriding royalties, net profits interests, mineral fee interests, carried interests, and other rights to Hydrocarbons in place, and mineral servitudes, that are described on Exhibit A (collectively, the "Leases") and any and all pooled, communitized or unitized acreage which includes all or part of any Leases, and all wells located on the lands subject to the Leases or the lands pooled, communitized or unitized therewith; (ii) all currently existing contracts, agreements and instruments that relate primarily to the ownership or operation of the Leases; (iii) all surface fee interests, easements, permits, licenses, servitudes, rights-of-way, surface leases and other rights to use the surface appurtenant to, and used or held primarily for use in connection with, the operation of the Leases; (iv) all equipment, machinery, facilities, fixtures and other tangible personal property and improvements, including pipelines and well equipment (both surface and subsurface) located on the Leases; and (v) all oil, gas and other hydrocarbons produced from or attributable to the Leases after the Effective Date.

TO HAVE AND TO HOLD all of the Assets, together with all rights, titles, interests, estates, remedies, powers and privileges thereunto appertaining unto Assignee and their respective successors, legal representatives and assigns forever. Subject to the terms of the Letter Agreement (as defined below), Assignor hereby binds itself, its successors, legal representatives and assigns, to warrant and forever defend Defensible Title to the Assets unto Assignee, its successors, legal representatives and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Assignor, but not otherwise, save and except for the Permitted Encumbrances and all matters of record as of the date hereof in the records of the State of Texas and the counties where the Assets are located, and the Assets are hereby assigned "AS IS, WHERE IS" without representation or warranty, except for as expressly set forth herein.

This Assignment is subject to (1) that certain Letter Agreement dated April 4, 2011 (the "Letter Agreement") between Assignor and Assignee and (2) that certain Operating Agreement dated June 15, 2011 ("JOA") between Assignor, Assignee and Petrohawk Operating Company. Capitalized terms used herein but not defined shall have the meanings assigned to them in the Letter Agreement. All terms and conditions of the Letter Agreement are incorporated herein by reference to the same extent and with the same effect as if included in full herein. To the extent of any conflict between the terms and conditions of this instrument and those set forth in the Letter Agreement, the terms and provisions of the Letter Agreement shall control as set forth more fully therein. FOR PURPOSES OF NOTICE TO THIRD PARTIES, HOWEVER, ASSIGNOR AND ASSIGNEE EXPRESSLY REPRESENT AND ACKNOWLEDGE THAT A THIRD PARTY MAY RELY ON THE DESCRIPTIONS OF THE ASSETS CONTAINED HEREIN FOR PURPOSES OF DETERMINING TITLE THERETO.

EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION 4(A) OF THE LETTER AGREEMENT OR SELLERS' SPECIAL WARRANTY OF TITLE SET FORTH HEREIN, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, SELLER (1) MAKES NO, AND EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, IN THIS OR ANY OTHER INSTRUMENT, AGREEMENT OR CONTRACT DELIVERED HEREUNDER OR IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED HEREUNDER OR THEREUNDER, INCLUDING, BUT NOT LIMITED TO, ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED AS TO (I) TITLE TO ANY OF THE ASSETS, (II) THE CONTENTS,

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: January 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY Dina C. Lucio DEPUTY

CULBERSON COUNTY TEXAS

7816

CHARACTER OR NATURE OF ANY DESCRIPTIVE MEMORANDUM, OR ANY REPORT OF ANY PETROLEUM ENGINEERING CONSULTANT, OR ANY GEOLOGICAL, SEISMIC DATA, RESERVE DATA, RESERVE REPORTS, RESERVE INFORMATION (ANY ANALYSIS OR INTERPRETATION THEREOF) RELATING TO THE ASSETS, (III) THE QUANTITY, QUALITY OR RECOVERABILITY OF PETROLEUM SUBSTANCES IN OR FROM THE ASSETS, (IV) THE EXISTENCE OF ANY PROSPECT, RECOMPLETION, INFILL OR STEP-OUT DRILLING OPPORTUNITIES, (V) ANY ESTIMATES OF THE VALUE OF THE ASSETS OR FUTURE REVENUES GENERATED BY THE ASSETS, (VI) THE PRODUCTION OF PETROLEUM SUBSTANCES FROM THE ASSETS, OR WHETHER PRODUCTION HAS BEEN CONTINUOUS, OR IN PAYING QUANTITIES, OR ANY PRODUCTION OR DECLINE RATES, (VII) THE MAINTENANCE, REPAIR, CONDITION, QUALITY, SUITABILITY, DESIGN OR MARKETABILITY OF THE ASSETS, (VIII) INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT, OR (IX) ANY OTHER RECORD, FILES OR MATERIALS OR INFORMATION (INCLUDING AS TO THE ACCURACY, COMPLETENESS OR CONTENTS OF THE RECORDS) THAT MAY HAVE BEEN MADE AVAILABLE OR COMMUNICATED TO ASSIGNEE OR ITS AFFILIATES, OR ITS OR THEIR EMPLOYEES, AGENTS, CONSULTANTS, REPRESENTATIVES OR ADVISORS IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT OR ANY DISCUSSION OR PRESENTATION RELATING THERETO, AND (2) FURTHER DISCLAIMS ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR CONFORMITY TO MODELS OR SAMPLES OF MATERIALS OF ANY EQUIPMENT. ASSIGNEE ACKNOWLEDGES AND AGREES THAT THE ASSETS ARE CONVEYED AND ACCEPTED BY ASSIGNEE, IN AN "AS IS" "WHERE IS" CONDITION WITH ALL FAULTS, IF ANY. ASSIGNEE. HAS BEEN PROVIDED WITH AN OPPORTUNITY TO INVESTIGATE THE ASSETS AND ASSIGNEE ACCEPTS THE ASSETS SOLELY UPON THE BASIS OF ITS OWN INVESTIGATION. ASSIGNEE HAS KNOWLEDGE OF OPERATIVE AND PROPOSED LAWS AND REGULATIONS TO WHICH THE ASSETS ARE OR MAY BE SUBJECT AND ASSIGNEE ACCEPTS THE ASSETS SOLELY UPON THE BASIS OF ITS OWN REVIEW AND DETERMINATION OF THE APPLICABILITY AND EFFECT OF SUCH LAWS AND REGULATIONS. ASSIGNEE ACKNOWLEDGES THAT IT IS ACCEPTING THIS ASSIGNMENT SOLELY ON THE BASIS OF ASSIGNEE'S OWN INVESTIGATION AND/OR EVALUATION OF THE PHYSICAL AND ENVIRONMENTAL CONDITIONS OF THE ASSETS, INCLUDING SURFACE AND SUBSURFACE CONDITIONS. NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS AGREEMENT OR ANY OTHER AGREEMENT OR INSTRUMENT DELIVERED HEREUNDER, NO SELLER MAKES, AND EACH SELLER EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRESENCE OR ABSENCE OF NORM OR ASBESTOS IN OR ON THE ASSETS IN QUANTITIES TYPICAL FOR OILFIELD OPERATIONS IN THE AREAS WHERE THE ASSETS ARE LOCATED. SELLER AND ASSIGNEE AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE DISCLAIMERS OF CERTAIN REPRESENTATIONS AND WARRANTIES CONTAINED HEREIN ARE "CONSPICUOUS" DISCLAIMERS FOR THE PURPOSE OF ANY APPLICABLE LAW AND THAT ALL OF THE OTHER DISCLAIMERS RELATING TO THE ASSETS CONTAINED IN THE LETTER AGREEMENT ARE HEREBY INCORPORATED HEREIN FOR ALL PURPOSES.

EXCEPT AS EXPRESSLY PROVIDED IN THE LETTER AGREEMENT OR THE JOA, ASSIGNEE HEREBY ASSUMES AND HEREBY AGREES TO FULFILL, PERFORM, PAY AND DISCHARGE (OR CAUSE TO BE FULFILLED, PERFORMED, PAID OR DISCHARGED) ALL LIABILITIES, LOSSES, CLAIMS, DEMANDS OR CAUSES OF ACTIONS ARISING FROM OR RELATED TO THE OWNERSHIP OR OPERATION OF THE ASSETS FOR ANY AND ALL PERIODS PRIOR TO, ON OR AFTER THE EFFECTIVE TIME ("ASSUMED OBLIGATIONS"), AND AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS ASSIGNOR, ALL AFFILIATES OF ASSIGNOR AND EACH OF THEIR RESPECTIVE OFFICERS, EMPLOYEES AND REPRESENTATIVES FROM THE ASSUMED OBLIGATIONS, IN EACH CASE WHETHER OR NOT CAUSED OR CONTRIBUTED IN WHOLE OR IN PART BY THE NEGLIGENCE, FAULT OR STRICT LIABILITY (WHETHER ACTIVE, PASSIVE, SOLE, SIMPLE, CONCURRENT, CONTINGENT OR OTHERWISE) OF, OR BREACH OF CONTRACT OR VIOLATION OR LAW BY, ASSIGNOR OR ANY OTHER PERSON AND WHETHER BASED ON, RELATED

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: January 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY Dana C. Lucas DEPUTY

TO OR ARISING OUT OF (IN WHOLE OR IN PART IN ANY WAY) ANY THEORY OF LIABILITY OR FAULT WHETHER IN TORT, CONTRACT, QUASI-CONTRACT, STRICT LIABILITY, UNSEAWORTHINESS OF ANY VESSEL, MISREPRESENTATION, EQUITY, INDEMNITY, CONTRIBUTION, VIOLATION OR OPERATION OF ANY LAW OR ANY OTHER CAUSE WHATSOEVER.

Notwithstanding Assignee's right to assign all or part of the Assets to third parties, Assignee shall remain fully responsible and liable for fulfillment of all the obligations and liabilities imposed herein, and for compliance with all terms and conditions established herein, and in the Letter Agreement, whether express or implied.

This Assignment is made with full substitution and subrogation of Assignee in and to all covenants and warranties by others heretofore given or made in respect of the Assets or any part thereof.

This Assignment shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, assigns, successors and transferees.

THIS ASSIGNMENT SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, EXCLUDING ANY CONFLICTS OF LAW RULE OR PRINCIPLE THAT MIGHT REFER CONSTRUCTION OF SUCH PROVISIONS TO THE LAWS OF ANOTHER JURISDICTION.

EACH PARTY HEREBY IRREVOCABLY CONSENTS TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS IN AND FOR HARRIS COUNTY OR THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS, HOUSTON DIVISION IN CONNECTION WITH ANY LITIGATION OR PROCEEDING ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREBY. ALL DISPUTES BETWEEN THE PARTIES TO THIS ASSIGNMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY SHALL HAVE JURISDICTION AND VENUE ONLY IN THE COURTS OF THE STATE OF TEXAS IN AND FOR HARRIS COUNTY OR THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS, HOUSTON DIVISION. EACH PARTY WAIVES ANY OBJECTION WHICH IT MAY HAVE PERTAINING TO IMPROPER VENUE OR FORUM NON-CONVENIENS TO THE CONDUCT OF ANY LITIGATION OR PROCEEDING IN THE FOREGOING COURTS. EACH PARTY AGREES THAT ANY AND ALL PROCESS DIRECTED TO IT IN ANY SUCH PROCEEDING OR LITIGATION MAYBE SERVED UPON IT OUTSIDE OF THE STATE OF TEXAS WITH THE SAME FORCE AND EFFECT AS IF SUCH SERVICE HAD BEEN MADE WITHIN TEXAS. EACH OF THE PARTIES HEREBY VOLUNTARILY AND IRREVOCABLY WAIVES TRIAL BY JURY IN ANY LITIGATION, ACTION OR OTHER PROCEEDING BROUGHT IN CONNECTION WITH THIS AGREEMENT.

All Exhibits attached hereto are hereby made part hereof and incorporated herein by this reference. References in such Exhibits to instruments on file in the public records are notice of such instruments for all purposes. Unless provided otherwise, all recording references in such exhibits are to the appropriate records of the counties in which the Assets are located.

Where separate assignments of the Assets have been or win be executed for filing with, and approval by, applicable governmental authorities, any such separate assignments (a) shall evidence this Assignment and assignment of the applicable Assets herein made and shall not constitute any additional Assignment or assignment of such properties, (b) are not intended to modify, and shall not modify, any of the terms, covenants and conditions or limitations on warranties set forth in this Assignment and are not intended to create, and shall not create, any representations, warranties or additional covenants of or by Assignor to Assignee and (c) shall be deemed to contain all of the terms and provisions of this Assignment, as fully and to all intents and purposes as though the same were set forth at length in such separate assignments.

This Assignment is intended to be recorded and filed of record. To facilitate recordation, there are omitted from the Exhibits to this Assignment in certain counterparts descriptions of property located in recording jurisdictions other than the jurisdiction (tax district, county, parish, state, or federal agency) in which the particular counterpart is to be filed or recorded.

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: January 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY: Ana C. Lucas DEPUTY

788

This Assignment may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same Assignment.

[Remainder of Page Intentionally Left Blank – Signature Page to Follow]

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: January 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY Ana C. Luna DEPUTY

IN WITNESS WHEREOF, the parties hereto have caused this Assignment to be duly executed on the date set above but effective for all purposes as of the Effective Date.

ASSIGNOR:

LEGEND NATURAL GAS IV, LP
BY: LEGEND NATURAL GAS GP IV, LLC
ITS GENERAL PARTNER

Name: Carl Wimberley
By: Carl Wimberley
Title: Vice President and General Counsel

ACKNOWLEDGMENT

STATE OF TEXAS:

COUNTY OF HARRIS:

On this the 15th day of September 2011, before me, the undersigned Notary Public, personally appeared Carl Wimberley, who acknowledged himself to be the Vice President and General Counsel of LEGEND NATURAL GAS GP IV, LLC, General Partner of LEGEND NATURAL GAS IV, LP, a Delaware limited partnership, and that he as such officer, being authorized to do so, executed the foregoing instrument on behalf of said limited partnership for the purposes therein contained by signing the name of the limited partnership by himself as such officer.

COBY NATHANSON
Notary Public, State of Texas
My Commission Expires
July 22, 2015

[NOTARY SEAL]

Notary Public in and for
The State of Texas
Name: Coby Nathanson
My Commission Expires: July 22, 2015

ASSIGNEE:

PETROHAWK PROPERTIES, LP
By: P-H Energy, LLC, its general partner

Name:
By: D. R. Deffenbaugh
Title: Vice President – Land

ACKNOWLEDGMENT

STATE OF OKLAHOMA:

COUNTY OF TULSA:

On this the 21st day of September, 2011, before me, the undersigned Notary Public, personally appeared D. R. Deffenbaugh, to me personally known, who being by me duly sworn did say that he is the Vice President - Land of P-H Energy, LLC, General Partner of Petrohawk Properties, LP, a Texas Limited Partnership, and that the foregoing instrument was signed on behalf of the said Partnership and that he acknowledged the foregoing instrument to be the free act and deed of said Partnership.

RITA KAY WALKER
NOTARY
#04007821
EXP. 08/27/12
PUBLIC
STATE OF OKLAHOMA

Notary Public in and for
The State of Oklahoma
Name:
My Commission Expires:

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: January 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY: Dina C. Luna DEPUTY

790

EXHIBIT A

Lessor	Lessee	Lease date	County	Book	Page	Recording reference	Lease legal desc
MARY JANE BARRON, INDIVIDUALLY AND AS TRUSTEE OF THE MARY JANE BARRON REVOCABLE LIVING TRUST U/T/A DATED 07/27/92	CLAY JOHNSON	7/20/2011	CULBERSON			OGL PENDING RECORDING	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 10: ALL SECTION 14: W/2 SECTION 15: ALL SECTION 16: ALL SECTION 21: ALL SECTION 22: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	580	DOC 67198	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 13: ALL SECTION 14: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	560	DOC 67196	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 15: ALL SECTION 22: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96, AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	570	DOC 67197	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 24: ALL BLOCK 111, PUBLIC SCHOOL LAND SURVEY SECTION 1: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	510	DOC 67191	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 10: ALL SECTION 16: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	530	DOC 67193	BLOCK 114, PUBLIC SCHOOL LAND SURVEY SECTION 22: ALL SECTION 23: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	520	DOC 67192	BLOCK 114, PUBLIC SCHOOL LAND SURVEY SECTION 12: ALL SECTION 13: ALL
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96, AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	550	DOC 67195	BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 20: ALL SECTION 21: ALL BLOCK 111, PUBLIC SCHOOL LAND SURVEY SECTION 4: N/392.2 ACRES

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: JUNE 25, 2013
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
BY Julia C. Lewis DEPUTY

EXHIBIT A

Lessor	Lessee	Lease date	County	Book	Page	Recording reference	Lease legal desc
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96, AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	540	DOC 67194	BLOCK 114, PUBLIC SCHOOL LAND SURVEY SECTION 24: ALL BLOCK 113, PUBLIC SCHOOL LAND SURVEY SECTION 19: ALL BLOCK 111, PUBLIC SCHOOL LAND SURVEY SECTION 5: N/143.7 ACRES
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96, AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	500	DOC 67190	ALL OF SECTIONS 8 AND 9, BLOCK 113, PUBLIC SCHOOL LANDS SURVEY, SAVE AND EXCEPT THAT PORTION OF BEXAR PREEMPTION SURVEY 199, LYING WITHIN THE BOUNDARIES OF SAID SECTIONS 8 AND 9
RODDY L. HARRISON, TRUSTEE OF THE HARRISON TRUST UNDER TRUST INDENTURE DATED 04/25/96. AS AMENDED	LEGEND NATURAL GAS IV, LP	7/29/2011	CULBERSON	106	498	DOC 67189	ALL OF PRE-EMPTION SURVEY 199, A-2536, BLOCK 113, PUBLIC SCHOOL LAND SURVEY
VANGIE D. ARTHUR, INDIVIDUALLY AND AS INDEPENDENT EXECUTRIX OF THE ESTATE OF J. VAN ARTHUR, DECEASED CYNTHIA JEAN CHARLES	LEGEND NATURAL GAS IV, LP	40360	CULBERSON	103	229	OGL NOT RECORDED Culberson; MEMO; DOC 66166	ALL OF SECTION 20, BLOCK 58, TWP. 2, T&P RY. CO. SURVEY

Filed for record on the 3rd day of October, A.D. 2011 @ 3:01 o'clock P .M. and
duly recorded on the 17th day of October, A.D. 2011@ 11:15 o'clock A .M.

LINDA MCDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS

By Dina C. Lucero, Deputy

A CERTIFIED COPY
IF IT BEARS THE SEAL OF THE COUNTY CLERK
ATTEST: October 25, 2015
LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS
By Dina C. Lucero DEPUTY

796

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF CULBERSON

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the O/G Gas Records of my office, found in VOL. 104, PAGE 786.

I hereby certified on 01 25 13

LINDA McDONALD, COUNTY & DISTRICT CLERK
CULBERSON COUNTY, TEXAS
BY Rita C. Lucas DEPUTY

HK-0039 Legend-Petrohawk Assignment Book 106, Page 786, File No. 67317 Culberson County, TX		
Section	**Block-Township**	**Mineral File Number**
16	113	MF113596
10	113	MF113596 & MF113061
22	114	MF113598
23	114	MF113598
5	111	MF113599
19	113	MF113599
24	114	MF113599
4	111	MF113600
20	113	MF113600
21	113	MF113600
15	113	MF113601
22	113	MF113601
1	111	MF113602
24	113	MF113602
13	113	MF113603
14	113	MF113603
8	113	MF113604
9	113	MF113604
Total Mineral File Numbers: 9		
Filing Fees @ $50/Mineral File Number: $450		

File No. 113061

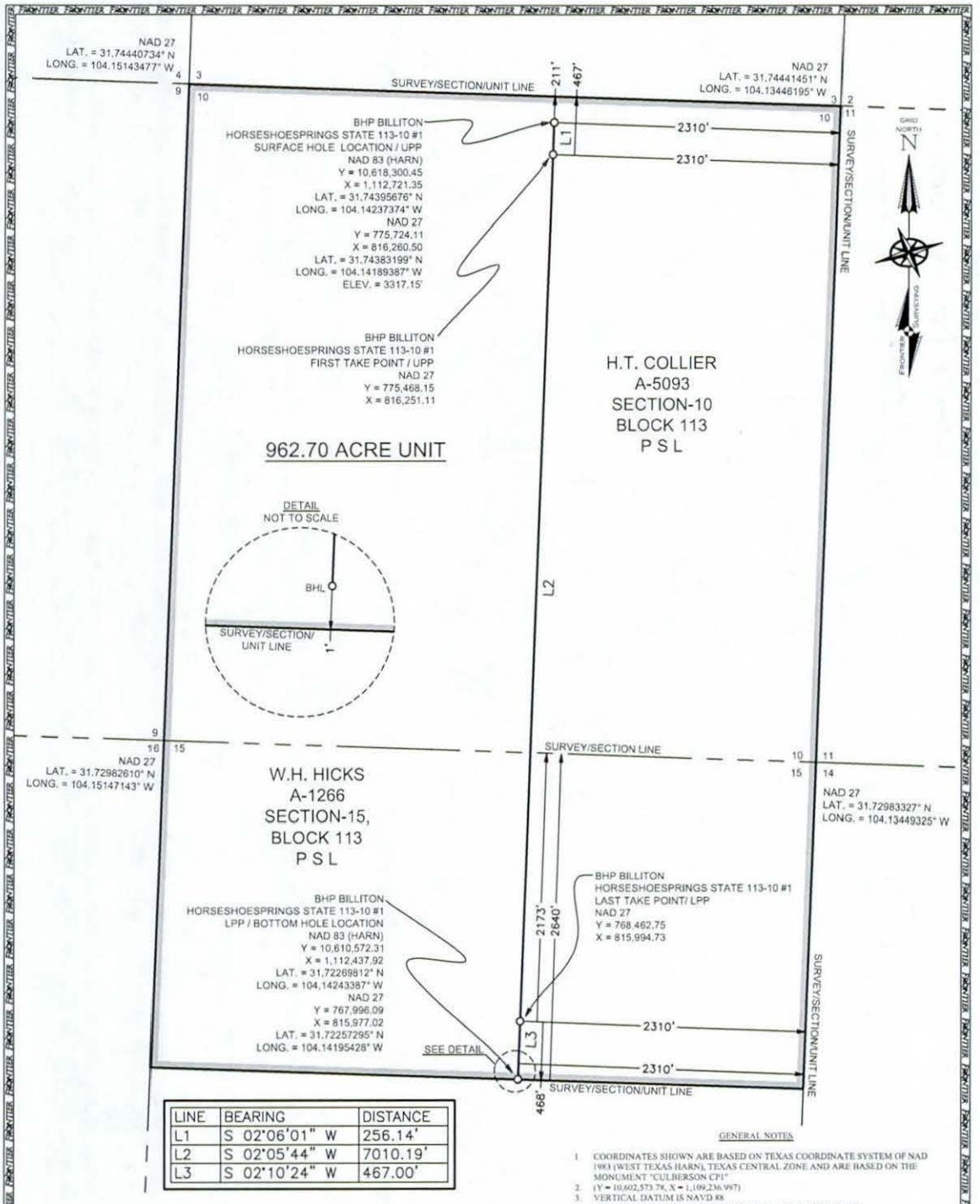
Assignment 8671

Date Filed: 02/22/13

Jerry E. Patterson, Commissioner

By

MF
113596 UI
113061



LINE	BEARING	DISTANCE
L1	S 02°06'01" W	256.14'
L2	S 02°05'44" W	7010.19'
L3	S 02°10'24" W	467.00'

500 0 500 1000 1500 2000 2500 3000

SCALE: 1" = 1000 FEET

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CULBERSON CP1"
2. (Y = 10,602,573.78, X = 1,109,236.997)
3. VERTICAL DATUM IS NAVD 88
4. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
5. AREA, DISTANCES, AND COORDINATES ARE "GRID"
6. UNITS ARE UNITED STATES SURVEY FOOT.
7. COMBINED SCALE FACTOR = 0.999802604
8. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 27 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 08/16/13.THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

PLOT DATE:09-25-13 9:51 AM

PLAT OF:

A WELL LOCATION FOR:

BHP BILLITON Pet (TXLA OP)

HORSESHOESPRINGS STATE 113-10 #1
FORD, WEST (WOLFCAMP)

SITUATED IN SECTION 10, BLOCK 113, THE H.T. COLLIER SURVEY, A-5093, AND SECTION 15, BLOCK 113, THE W.H. HICKS SURVEY, A-1266, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 14.6 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 08/16/13	File Name: 1308031.DWG
Scale: 1" = 1000'	Surveyed by: AD/MB
Drawn by: SZC/MC/DP	Checked by: MC

JOB #: 1308031

FRONTIER
SURVEYING COMPANY
SERVICES: LAND SURVEYING/LOCATIONS/PIPELINES/MAPPING/GPS/GIS
710 BUFFALO STREET, SUITE 700, CORPUS CHRISTI, TEXAS, 78401
PHONE (361) 881 - 8044 FAX (361) 881 - 8340
www.frontiersurveying.com

8.

File No. MF 11306
Plat for Horseshoesprings St. 113-10 #1

Date Filed: 8/16/13
Jerry E. Patterson, Commissioner

By SSD

DrillingInfo One-Page Production Summary

drillinginfo

Tag This Element

API#	42-109-32565
Well#	2V
Lease	HORSESHOE SPRINGS STATE 113-16
Field	WOLFBONE (TREND AREA)
Lease Operator	BHP BILLITON PET(TXLA OP) CO Well Op History
County	Culberson
State	Texas
Location	1070.0 S / 1319.0 E, PSL/COOKSEY, J M A-5115 Block:113 Section:16
Elevation	
Date Spud	--
Date TD	--
Logs Run	

Prod.	First Production	Most Recent Production	Cumulative (MCF & BBL)	Gravity (SG & API)	Gatherer
Oil	9/1/13	10/1/13	270	0.00	
Gas	9/1/13	10/1/13	4,796	0.00	

Most Recently Reported Monthly Production (12 Months)

Mo/Yr	Gas (MCF)					Oil (BBL)				Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)
	Produced	Sold	Used	Vented/Flared	Other	Produced	Sold	Other	Closing						
8/2013	0	0	0	0	0	0	0	0	0	0	---	---	0.00	0.00	0.00
9/2013	244	0	0	0	0	270	0	0	0	0	---	---	8.13	9.00	0.00
10/2013	4,552	0	0	0	0	0	0	0	0	0	---	---	146.84	0.00	0.00
11/2013	0	0	0	0	0	0	0	0	0	0	---	---	0.00	0.00	0.00
12/2013	0	0	0	0	0	0	0	0	0	0	---	---	0.00	0.00	0.00
Totals	4,796	0	0	0	0	270	0	0	0	0	---	---	---	---	---

Annual Production

Year	Gas (MCF)	Oil (BBL)	Water (BW)	#Wells Flowing	#Wells Other	Avg Gas (MCF/D)	Avg Oil (BBL/D)	Avg Wtr (BW/D)	Annual Dec. Gas	Annual Dec. Oil
2013	4,796	270	---	---	---	78.88	4.44	0.00	---	---
Totals	4,796	270	---	---	---	---	---	---	---	---

Back

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9.

File No. MF 130161
Production Rpt.
109-32565 Horseshoe Springs St. .113-16
#2V
Date Filed: 3/3/14
Jerry E. Patterson, Commissioner

By SSD

API No. 42-109-32535
Drilling Permit # 757869
SWR Exception Case/Docket No.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION
APPLICATION FOR PERMIT TO DRILL, RECOMPLETE, OR RE-ENTER

This facsimile W-1 was generated electronically from data submitted to the RRC. A certification of the automated data is available in the RRC's Austin office.

FORM W-1 07/2004

Permit Status: Approved

1. RRC Operator No. 660146
2. Operator's Name (as shown on form P-5, Organization Report): PETROHAWK OPERATING COMPANY
3. Operator Address (include street, city, state, zip):
4. Lease Name: HORSESHOE SPRINGS STATE 113-16
5. Well No.: 1V

GENERAL INFORMATION

6. Purpose of filing (mark ALL appropriate boxes): [X] New Drill [ ] Recompletion [ ] Reclass [ ] Field Transfer [ ] Re-Enter [ ] Amended [ ] Amended as Drilled (BHL) (Also File Form W-1D)

7. Wellbore Profile (mark ALL appropriate boxes): [X] Vertical [ ] Horizontal (Also File Form W-1H) [ ] Directional (Also File Form W-1D) [ ] Sidetrack

8. Total Depth: 14000
9. Do you have the right to develop the minerals under any right-of-way ? [X] Yes [ ] No
10. Is this well subject to Statewide Rule 36 (hydrogen sulfide area)? [ ] Yes [X] No

SURFACE LOCATION AND ACREAGE INFORMATION

11. RRC District No.: 08
12. County: CULBERSON
13. Surface Location: [X] Land [ ] Bay/Estuary [ ] Inland Waterway [ ] Offshore

14. This well is to be located 16.4 miles in a SW direction from Oela which is the nearest town in the county of the well site.

15. Section	16. Block	17. Survey	18. Abstract No.	19. Distance to nearest lease line:	20. Number of contiguous acres in lease, pooled unit, or unitized tract:
16	113	PSL / COOKSEY, J M	A-5115	1100 ft.	635.72

21. Lease Perpendiculars: 1100 ft from the S line and 1320 ft from the E line.
22. Survey Perpendiculars: 1100 ft from the S line and 1320 ft from the E line.

23. Is this a pooled unit? [ ] Yes [X] No
24. Unitization Docket No:
25. Are you applying for Substandard Acreage Field? [ ] Yes (attach Form W-1A) [X] No

FIELD INFORMATION List all fields of anticipated completion including Wildcat. List one zone per line.

26. RRC District No.	27. Field No.	28. Field Name (exactly as shown in RRC records)	29. Well Type	30. Completion Depth	31. Distance to Nearest Well in this Reservoir	32. Number of Wells on this lease in this Reservoir
08	71052900	PHANTOM (WOLFCAMP)	Oil or Gas Well	9515	0.00	1

BOTTOMHOLE LOCATION INFORMATION is required for DIRECTIONAL, HORIZONTAL, AND AMENDED AS DRILLED PERMIT APPLICATIONS

Remarks

Certificate:

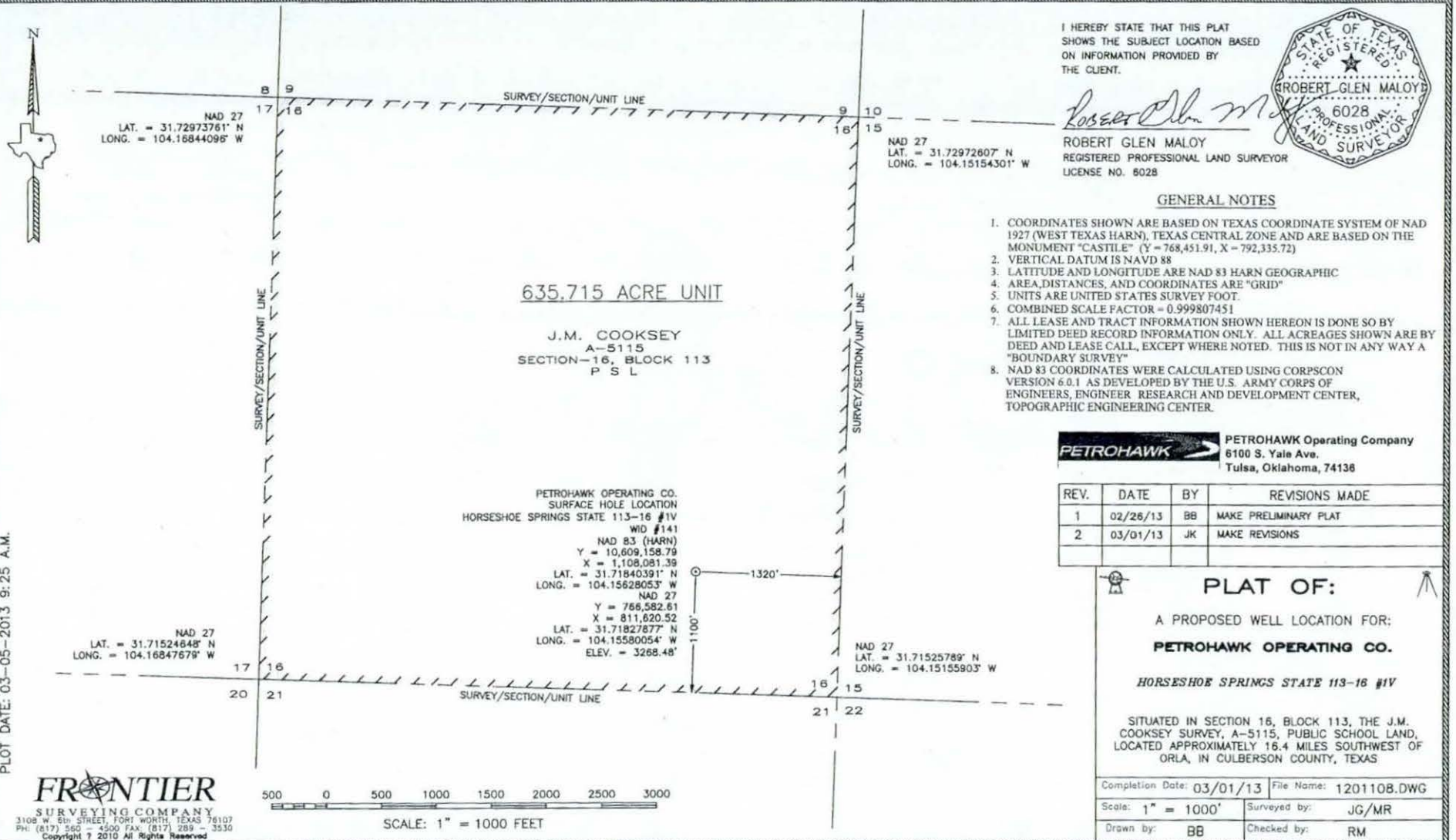
I certify that information stated in this application is true and complete, to the best of my knowledge.

Carey Holtzendorf, Lead Regulatory Specialist — Name of filer
Mar 05, 2013 — Date submitted

(713)5524581 — Phone
Carey.Holtzendorf@BHPBilliton.com — E-mail Address (OPTIONAL)

RRC Use Only Data Validation Time Stamp: Mar 6, 2013 2:12 PM('As Approved' Version)

PERMIT PLAT WID #141 JOB #: 1201108



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

STATE OF TEXAS REGISTERED ROBERT GLEN MALOY 6028 PROFESSIONAL LAND SURVEYOR

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1927 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 768,451.91, X = 792,335.72)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 83 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

PETROHAWK

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

REV.	DATE	BY	REVISIONS MADE
1	02/26/13	BB	MAKE PRELIMINARY PLAT
2	03/01/13	JK	MAKE REVISIONS

PLAT OF:

A PROPOSED WELL LOCATION FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V

SITUATED IN SECTION 16, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5115, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 03/01/13		File Name: 1201108.DWG	
Scale: 1" = 1000'		Surveyed by:	JG/MR
Drawn by:	BB	Checked by:	RM

PLOT DATE: 03-05-2013 9:25 A.M.

FRONTIER
SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
Copyright © 2010 All Rights Reserved

10.

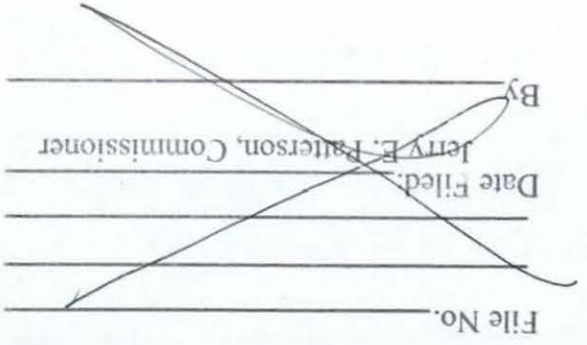
File No. MF 113061

Permit 109-32535 #IV

Date Filed: 3/3/14

Jerry E. Patterson, Commissioner

By SSD



Tracking No.: 97409
Status: Submitted

RAILROAD COMMISSION OF TEXAS

Oil and Gas Division

This facsimile G-1 was generated electronically from data submitted to the RRC.

API No. 42- 109-32619

7. RRC District No.: 08

8. RRC Gas ID No.:

Gas Well Back Pressure Test, Completion or Recompletion Report, and Log

1. FIELD NAME (as per RRC Records or Wildcat)	2. LEASE NAME	9. Well No.
FORD, WEST (WOLFCAMP)	HORSESHOESPRINGS STATE 113-10	1

3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report)	RRC Operator No.	10. County of well site
BHP BILLITON PET(TXLA OP) CO	068596	CULBERSON

4. ADDRESS: 1360 POST OAK BLVD STE 150 HOUSTON, TX 77056-0000

11. Purpose of filing: Initial Potential [ ] Retest [ ] Reclass [ ] Well record only (Explain In remarks) [X]

5. Location (Section, Block, and Survey)	5b. Distance and direction to nearest town in this county.
10 , 113 , PSL/COLLIER, H T , A-5093	ORLA

6. If operator has changed within last 60 days, name former operator:

12. If workover or reclass, give former field (with reservoir) & Gas ID or oil lease no. FIELD & RESERVOIR	GAS ID or OIL LEASE #	Oil-0 Gas-G	Well #
N/A			

13. Pipe Line Connection:

14. Completion or recompletion date	15. Any condensate on hand at time of workover or recompletion?	16. Type of Electric or other Log Run.
11/30/2013	[ ] Yes [X] No	Gamma Ray (MWD)

Section I — GAS MEASUREMENT DATA

Date of Test:

Gas Measurement Method (Check One): Orifice Meter [ ] ▶ Flange Taps [ ] Pipe Taps [ ] Positive Choke [ ] Orifice Vent Meter [ ] Pitot Tube [ ] Critical-flow Prover [ ]

Gas produced during test: MCF

Run Size	Line Size	Orif. or Choke Size	24 hr Coeff. Orif. or Choke	Static Pm or Choke Press	Diff h_w	Flow Temp. ^oF	Temp. Factor F_{tf}	Gravity Factor F_g	Compress Factor F_{pv}	Volume MCF/DAY
1	N/A									
2										
3										
4										

Section II — FIELD DATA AND PRESSURE CALCULATIONS

Gravity (Dry Gas)	Gravity Liquid Hydrocarbon Deg. API	Gas-Liquid Hydro Ratio CF/Bbl	Gravity of Mixture G_{mix} =	Avg. Shut-in Temp. ^oF	Bottom Hole Temp. ^oF@ (Depth)

$D_{eff}^{8/3}$ = $\sqrt{T_f}$ = $\sqrt{\quad}$ = $\sqrt{GL}$ = $\sqrt{\quad}$ =

$C = \frac{1118 \times (D_{eff})^{8/3}}{\sqrt{T}}$ = = $\frac{\sqrt{GL}}{C}$ = ____ = ____

Run No.	Time of Run Min	Choke Size	Wellhead Press. PSIA Pw	Wellhead Flow Temp ^oF	P_w^2 (Thousands)	R	R^2 (Thousands)	P_l	P_w / P_l
Shut-in	N/A								
1									
2									
3									
4									

Run No.	F	K	$S = \frac{1}{Z}$	E^{ks}	P_f and P_s	P_f^2 and P_s^2 (Thousands)	$P_f^2 - P_s^2$ (Thousands)	Angle of Slope
Shut-in								θ .....
1								n .....
2								Absolute Open Flow
3								..... MCF/DAY
4								

WELL TESTERS CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I conducted or supervised this test and that data and facts shown in Sections I and II above are true, correct, and complete, to the best of my knowledge. Bottomhole temperature and the diameter and length of flow string were furnished by the operator of the well.

BHP BILLITON PET(TXLA OP) CO(068596)

Signature: Well Tester — Name of Company — RRC Representative

OPERATORS CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I or prepared supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Greg Bilbro	DRGA	02/13/2014	Tel: (512) 476-1245
Signature: Operator's representative	Title	Date	A/C Number

SECTION III **DATA ON WELL COMPLETION AND LOG (Not Required on Retest)**

17. Type of Completion
New Well [X] Deepening [ ] Plug Back [ ] Other [ ]

18. Permit to Drill, Plug Back or Deepen — DATE 10/03/2013 — PERMIT NO. 770616
Rule 37 Exception — CASE NO.
Water Injection Permit — PERMIT NO.
Salt Water Disposal Permit — PERMIT NO.
Other — PERMIT NO.

19. Notice of Intention to Drill this well was filed in Name of
BHP BILLITON PET(TXLA OP) CO

20. Number of producing wells on this lease in this field (reservoir) including this well
1

21. Total number of acres in this lease
962.7

22. Date Plug Back, Deepening, Workover or Drilling Operations: Commenced 10/13/2013 — Completed 11/30/2013

23. Distance to nearest well, Same Lease & Reservoir
0.0

24. Location of well, relative to nearest lease boundaries
211.0 Feet From North Line and 2310.0 Feet from
East Line of the HORSESHOESPRINGS STATE 113-10 Lease

25. Elevation (DF, RKB, RT, GR ETC.)
3317 GL

26. Was directional survey made other than inclination (Form W-12)? [X] Yes [ ] No

27. Top of Pay

28. Total Depth
9030 MD:16150

29. P. B. Depth
8915 MD:16057

30. Surface Casing Determined by: Field Rules [ ] Recommendation of T.D.W.R. [X] Dt. of Letter 10/07/2013 Railroad Commission (Special) [ ] Dt. of Letter

31. Is well multiple completion? [ ] Yes [X] No

32. If multiple completion, list all reservoir names (completions in this well) and Oil Lease or Gas ID No.

FIELD & RESERVOIR	GAS ID or OIL LEASE #	Oil-0 Gas-G	Well #
N/A			

33. Intervals Drilled by: Rotary Tools X — Cable Tools

34. Name of Drilling Contractor

35. Is Cementing Affidavit Attached? [X] Yes [ ] No

36. CASING RECORD (Report All Strings Set in Well)

CASING SIZE	WT #/FT.	DEPTH SET	MULTISTAGE TOOL DEPTH	TYPE & AMOUNT CEMENT (sacks)	HOLE SIZE	TOP OF CEMENT	SLURRY VOL. cu. ft.
13 3/8		495	220	C 800	18 1/2	SURFACE	1064.0
8 5/8		8974		TXI/C 759	10 5/8	3737	1419.0
8 5/8		8974	3733	TXI/C 1234	10 5/8	2400	2410.0
5 1/2		16139		TXI 2018	7 7/8	4300	2832.0

37. LINER RECORD

Size	Top	Bottom	Sacks Cement	Screen

38. TUBING RECORD

Size	Depth Set	Packer Set
N/A		

39. Producing Interval (this completion) Indicate depth of perforation or open hole

From	To
From N/A	To
From	To
From	To

40. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

Depth Interval		Amount and Kind of Material Used
80.0	140.0	CMT PLUG SET IN OPEN HOLE PRIOR TO SETTING OF SURFACE CASING - 705 SXS CL C/RFC - DRILLED OUT
3391.0	4000.0	PLUG 1 SET DUE TO CIRC LOSS IN 10 5/8 OPEN HOLE - 360 SXS CL C - DRILLED OUT
4900.0	5200.0	PLUG 2 SET DUE TO CIRC LOSS IN 10 5/8 OPEN HOLE - 175 SXS RFC - DRILLED OUT

41. FORMATION RECORD (LIST DEPTHS OF PRINCIPAL GEOLOGICAL MARKERS AND FORMATION TOPS)

Formations	Depth	Formations	Depth
	null		

REMARKS: 13 3/8 - DV TOOL SET BUT NOT EMPLOYED - CEMENT CIRCULATED FROM SHOE TO SURFACE. EXCEPTION TO SWR-11 OBTAINED 11/26/13.

11.

File No. MF113061
G-1 Completion Rpt. 109-32619
Unit 6495
Date Filed: 11/30/13
Jerry E. Patterson, Commissioner
By SSD

View TX RRC G1 Gas Compl. (unapproved): PDF Document 1

drillinginfo.com Gas Completion Details

Report a Problem

Copyright 2000 by Drilling Info, Inc. All rights reserved. All data and information supplied "AS IS" and subject to subscription agreement.

API No. 42 - 109 - 32619

RRC District No. 8

RRC Gas ID No.

Gas Well Back Pressure Test, Completion or Recompletion Report, and Log

Field Name (as per RRC Records or Wildcat): FORD, WEST (WOLFCAMP)

Lease Name: HORSESHOESPRINGS STATE

Field Discovery

Well No. 1

Operator's Name (exactly as shown on P-5, Organization Report): BHP BILLITON PET(TXLA OP) CO

RRC Operator No. 68596

County of well site: Culberson

Section	Block	Miles	Direction	Town
10	113			ORLA

Survey: PSL/COLLIER, H T

Abstract: A-5093

Purpose of filing
- ○ Initial Potential
- ○ Retest
- ○ Reclass
- ◉ Well Record Only

Pipe Line Connection

Completion date: 11/30/2013

Type of log run: GAMMA RAY (MWD)

Section I: Gas Measurement Data

Test date

Gas produced

Run No.	Static Pm or Choke Press	Volume MCF/day
1		
2		
3		
4		

Section II: Field Data and Pressure Calculations

Gravity (Dry Gas)	Gravity Liquid Hydrocarbon	Gas-Liquid Hydro ratio	Gravity of Mixture	Bottom Hole Temp	Bottom Hole Pressure	Absolute Open Flow
				°F @ depth		

Run No.	Time of Run Min.	Choke Size	Wellhead Press. PSIA
Shut-In			
1			

2			
3			
4			

Section III: Data on Well Completion and Log

Type of Completion
(●) New Well ( ) Deepening ( ) Plug Back ( ) Other

Drill, Plug Back, or Deepen Permit No.
770616

Producing wells on this lease in this field
1

Total number of acres in this lease
962.7

Date Plug Back, Deepening, Workover or Drilling Operations: Commenced 10/13/2013 Completed 11/30/2013

Well Location
211 feet from N line and
2310 feet from E line of the HORSESHOESPRINGS lease

Elevation
3317 GL

Was directional survey made other than inclination (W-12)? (●) Yes ( ) No

	Top of Pay	Total Depth	P.B. Depth
TVD		9030	8915
Measured		16150	16057
Not Specified			

Is well multiple completion?
( ) Yes (●) No

Name of Drilling Contractor

Casing Record

Casing Size	WT #/FT.	Depth Set	Hole Size
13 3/8		495	18 1/2
8 5/8		8974	10 5/8
8 5/8		8974	10 5/8
5 1/2		16139	7 7/8

Liner Record

No liner data is available for this completion.

Tubing Record

No tubing data is available for this completion.

Producing Interval (this completion)

No producing interval data is available for this completion.

Acid, Shot, Fracture, Cement Squeeze, etc.

☐ Acid ☐ Frac

No acid, shot, or squeeze data is available for this completion.

Formation Record

No formation data is available for this completion.

Remarks:
DI ADVISORY: THE ACID, SHOT, FRAC., CMT SQZ., ETC. DEPTH INTERVAL LISTED AS(80-140)CMT PLUG SET IN OPEN HOLE PRIOR TO SETTING OF SURFACE CASING - 705 SXS CL C/RFC - DRILLED OUT (3391-4000)PLUG 1 SET DUE TO CIRC LOSS IN 10 5/8 OPEN HOLE - 360 SXS CL C - DRILLED OUT (4900-5200) PLUG 2 SET DUE TO CIRC LOSS IN 10 5/8 OPEN HOLE - 175 SXS RFC - DRILLED OUT 13 3/8 - DV TOOL SET BUT NOT EMPLOYED - CEMENT CIRCULATED FROM SHOE TO SURFACE. EXCEPTION TO SWR-11 OBTAINED 11/26/13.

Back

12.

File No. MF 113061
Completion Rpt. 109-32619
Unit 6495
Date Filed: 11/30/13
Jerry E. Patterson, Commissioner
By SSD

bhpbilliton
resourcing the future

North America Shale Production Division

February 28, 2014

Via Overnight Mail (FedEx Trkg #798067984966)
Texas General Land Office
Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701-1495

Attention: J. Daryl Morgan, CPL, Energy Resources Division

Re: Certified Copy of Recorded Original Term Pooling Agreement –
Horseshoe Springs State 113-10 #1H Unit M-113061
GLO Unit No. 6495
Culberson County, Texas

Dear Mr. Morgan:

Enclosed you will find a Certified Copy of Recorded Original Term Pooling Agreement, BHP Petroleum Properties (N.A.) LP, Horseshoe Springs State 113-10 #1H Unit, GLO Unit No. 6495, Culberson County, Texas for your records.

Should you need any additional information, please feel free to contact Tiffany Wright, Landman at 713-297-6566, email Tiffany.Wright@bhpbilliton.com .

Sincerely,

Lynn Latiolais

Lynn Latiolais, CPLTA
Land Technical Analyst

/ll
Enclosure

BHP Billiton • Land Department-Permian • 1360 Post Oak Blvd, Suiite 150 • Houston, TX 77056
Direct 713.297.6557 • Fax 713.966.2914
Email: Lynn.Latiolais@bhpbilliton.com • www.bhpbilliton.com

70124

TERM POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HORSESHOE SPRINGS STATE 113-10 #1H UNIT
GLO UNIT NO. 6495
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to all depths underlying the surface boundaries of the pooled unit ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it

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B 2-19-2014

being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than 962 acres, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

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2-19-2014

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of November 5, 2013.

TERM: 9.

Unless this agreement expires earlier pursuant to the terms of the respective leases included as a part of this Agreement, or on such other date approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns, this Agreement shall expire on November 5, 2014. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease, covered by this Agreement.

STATE LAND: 10.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 11.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 12.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

COUNTERPARTS: 13.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 1/21/14

STATE OF TEXAS

Legal
Content
Geology
Executive

By: _____
Jerry Patterson, Commissioner
General Land Office

CULBERSON COUNTY TEXAS
True and Correct copy of Original filed in Culberson County Clerks Office
@ 2-19-2014

Date Executed 11/20/2013

BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP

By: John W. Walsh

John W. Walsh

Its: Attorney in Fact

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on Nov. 20, 2013, by John W. Walsh as Attorney in Fact of BHP Billiton Petroleum Properties (N.A.), LP, a Texas limited partnership on behalf of said partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

Lynn Latiolais
Notary Public in and for the
State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 5th day of November, 2013, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 23rd day of January, 2014.

Stephanie Crenshaw
Secretary of the School Land Board

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2-19-2014

Exhibit "A"

Leases In Unit

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 510, Doc # 67191, Filed: 08/18/2011, Culberson County, Texas

Royalty: 25%

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 560, Doc # 67196, Filed: 08/18/2011 Culberson County, Texas

Royalty: 25%

Lessor: State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92

Lessee: Clay Johnson

Date: 07/20/2011

Recording Info: Book 106, Page 466, Doc # 67163, Filed: 08/04/2011, Culberson County, Texas

Royalty: 25%

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2-19-2014

Exhibit "B"

Description of Lands included in the Pooling Agreement

Tract 1:
All of Section 10, BLK 113, Public School Land Survey, Culberson County Texas.

Tract 2:
The North Half of Section 15, BLK 113, Public School Land Survey, Culberson County, Texas.

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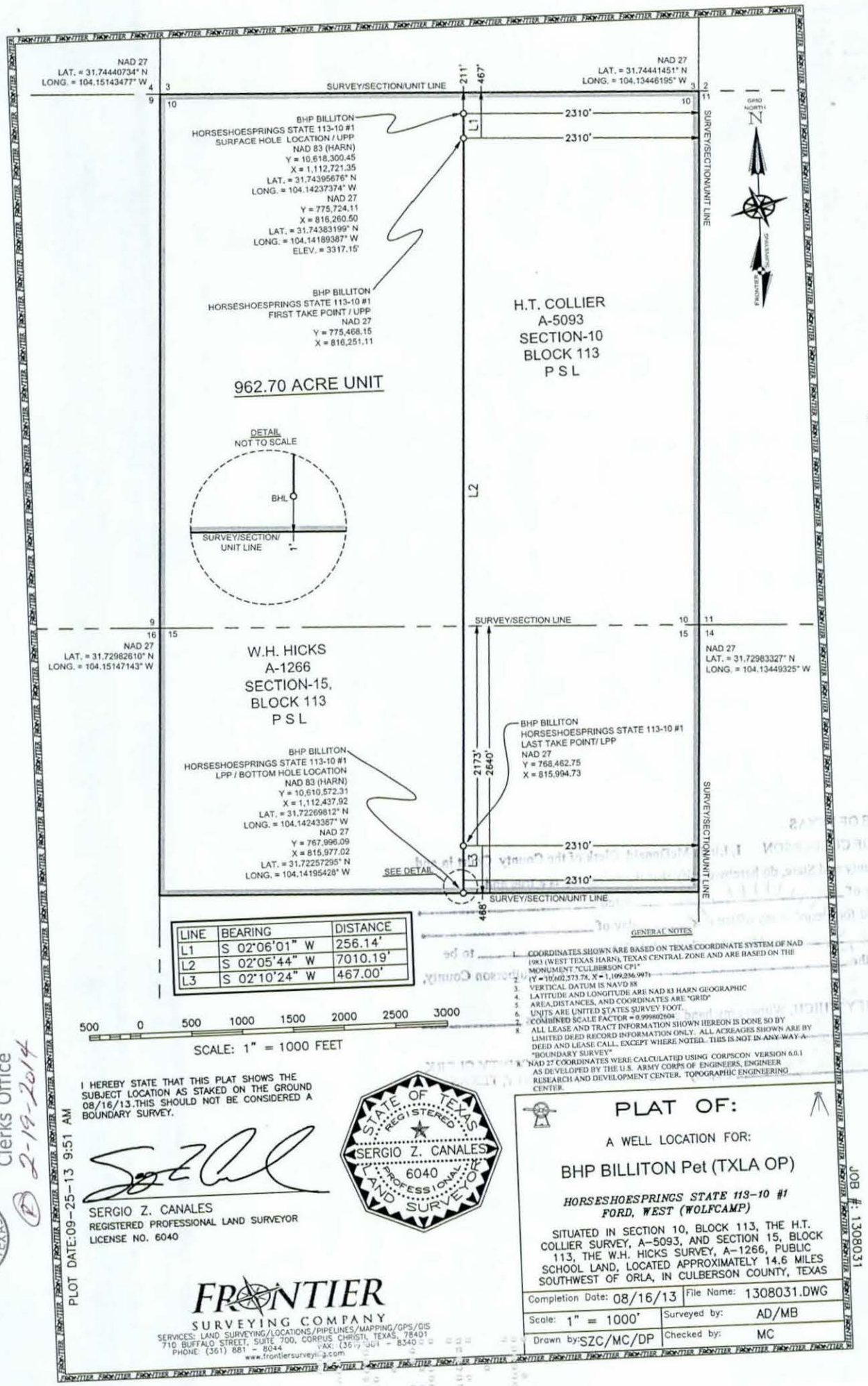
2-19-2014



LINE	BEARING	DISTANCE
L1	S 02°06'01" W	256.14'
L2	S 02°05'44" W	7010.19'
L3	S 02°10'24" W	467.00'

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CULBERSON CP1" (Y = 10,602,373.78, X = 1,109,236.997)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA, DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999802604
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 27 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 08/16/13. THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

PLOT DATE: 09-25-13 9:51 AM

PLAT OF:

A WELL LOCATION FOR:

BHP BILLITON Pet (TXLA OP)

HORSESHOESPRINGS STATE 113-10 #1
FORD, WEST (WOLFCAMP)

SITUATED IN SECTION 10, BLOCK 113, THE H.T. COLLIER SURVEY, A-5093, AND SECTION 15, BLOCK 113, THE W.H. HICKS SURVEY, A-1266, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 14.6 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 08/16/13	File Name: 1308031.DWG		
Scale: 1" = 1000'	Surveyed by: AD/MB		
Drawn by: SZC/MC/DP	Checked by: MC		

JOB #: 1308031

FRONTIER
SURVEYING COMPANY
SERVICES: LAND SURVEYING/LOCATIONS/PIPELINES/MAPPING/GPS/GIS
710 BUFFALO STREET, SUITE 700, CORPUS CHRISTI, TEXAS, 78401
PHONE: (361) 881 - 8044 FAX: (361) 881 - 8340
www.frontiersurveying.com

True and Correct copy of Original filed in Culberson County Clerks Office
CULBERSON COUNTY TEXAS
2-19-2014

(13)

File No. M-113961
Lt. from BTA with recorded Horseshoe Spring Unit
Date Filed: 2/13/14
Jerry E. Patterson, Commissioner
By

original mes

Doc# 00000070124
#Pages 7 #NFPages 0
2/19/2014 10:44:39 AM
Filed & Recorded in
Official Public Records of
County and District Clerk
Linda McDonald
Fees 44.00

State of Texas
County of Culberson

I hereby certify this instrument was FILED on the date and at the time stamped hereon by me and was duly RECORDED in the VOL _____ and Page _____ of the _____ Records of Culberson County, Texas on:

_____
By Deputy

THE STATE OF TEXAS
COUNTY OF CULBERSON I, Linda McDonald, Clerk of the County Court in and for said County and State, do hereby certify that the foregoing is a true and correct copy of Texas Pooling Agreement dated Jan 23, 2014 filed for record in my office this 19 day of Feb, 2014 at 10:44 A.M. under Clerk's File No. 70124 to be recorded in the Oil & Gas Records of Culberson County, Texas.

TO CERTIFY WHICH, Witness my hand and seal at Van Horn this 19 day of February, 2014

By _____ Deputy

LINDA McDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

PA13-435

Unit Number	*6495*		
Operator Name	*BHP BILLITON PETROLEUM (TXLA OPERATING) CO*	*Effective Date*	*11/5/2013*
Customer ID	*C000046383*	*Unitized For*	*Oil & Gas*
Unit Name	*Horseshoe Springs State 113-10 #1H*	*Unit Term*	*12 Months*
County1	*Culberson*		

	Old Unit Number	*Inactive Status Date*
County 2	*0*	
County 3	*0*	
RRC District: *08*	*0*	
Unit Type: *Temporary*	*0*	
	0	

State Royalty Interest: *0.1250000000*
State Part in Unit: *1.0000000000*
Unit Depth **All**
Below Depth **0**
Above Depth
Well:
Formation: *Wolfcamp*
Participation Basis: *Surface Acreage*
[If Exclusions Apply: See Remarks]

MF Number	MF113596		*Tract Number*	1	
Lease Acres		480 /	*Total Unit Acres*	962.7 =	
Tract Participation:	0.4985977	X			
Lease Royalty		0.125 =	*Manual Tract Participation:*	0	*See Remark*
Tract Royalty Participation	0.0623247		*Manual Tract Royalty:*	0	

Tract Royaly Reduction	No
Tract Royalty Rate	0
Tract On-Line Date:	

07-032739

MF Number	MF113061		*Tract Number*	2	
Lease Acres	241.35	/	*Total Unit Acres*	962.7	=
Tract Participation:	0.2507012	X			
Lease Royalty	0.125	=	*Manual Tract Participation:*	0	See Remark
Tract Royalty Participation	0.0313376		*Manual Tract Royalty:*	0	

Tract Royaly Reduction	No
Tract Royalty Rate	0
Tract On-Line Date:	

1st Page
↑ 07-032739 - 120.675 Ac + 480 Ac = 600.675
↓ 07-032784 - 120.675 Ac + 241.35 Ac = 362.025

MF Number	MF113601		*Tract Number*	3	
Lease Acres	241.35	/	*Total Unit Acres*	962.7	=
Tract Participation:	0.2507012	X			
Lease Royalty	0.125	=	*Manual Tract Participation:*	0	See Remark
Tract Royalty Participation	0.0313376		*Manual Tract Royalty:*	0	

Tract Royaly Reduction	No
Tract Royalty Rate	0
Tract On-Line Date:	

07-032784

API Number *RRC Number*

109 - 32619

Remarks:

Prepared By:	REW	*Prepared Date:*	11/5/13
GLO Base Updated By:	REW	*GLOBase Date:*	11/5/13
RAM Approval By:	RD	*RAM Approval Date:*	1/31/14
GIS By:	MC	*GIS Date:*	4-21-14
Well Invetory By:	MB	*WI Date:*	4/3/14

Pooling Committee Report

To: School Land Board

PA13-435

Date of Board Meeting: November 5, 2013

Unit Number: 6495

Effective Date: 11/5/2013

Unit Expiration Date: 11/5/2014

Applicant: BHP BILLITON PETROLEUM PROPERTIES

Attorney Rep:

Operator: BHP BILLITON PETROLEUM (TXLA OPERATING) COMPANY

County 1: Culberson

County 2:

County 3:

Unit Name: Horseshoe Springs State 113-10 #1H

Field Name: FORD, WEST (WOLFCAMP)

Lease Type	MF Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres in Unit	Royalty Participation
RAL	MF113061	0.125	7/20/2016	5 years	3520	241.35	0.0313376
RAL	MF113596	0.125	7/29/2014	3 years	1280	480	0.0623247
RAL	MF113601	0.125	7/29/2014	3 years	1280	241.35	0.0313376

SF = State Fee RAL = Relinquishment Act FR = Free Royalty UR = Unleased River

Private Acres:	0
State Acres:	962.7
Total Unit Acres:	962.7

Participation Basis:
Surface Acreage

State Acreage:	100.00%
State Unit Royalty:	12.50%

Unit Type:	Unitized for:
Temporary	Oil & Gas
Term:	12 Months

Well Location:
State Land

RRC Rules:	Spacing Acres:
Special Field Rule	320+rule86

REMARKS:

Pooling Agreement Number: PA13-435

- BHP Billiton Petroleum Properties is requesting 12 month temporary oil and gas pooling to all depths in order to test the Wolfcamp Formation.

- The applicant spud the unit well on October 13, 2013, with a proposed TD of 9,010 feet TVD. A 7,500 foot lateral is expected to be drilled.

- With approval of the unit the State's unit royalty participation will be 12.50%.

- The State will participate from the date of first production.

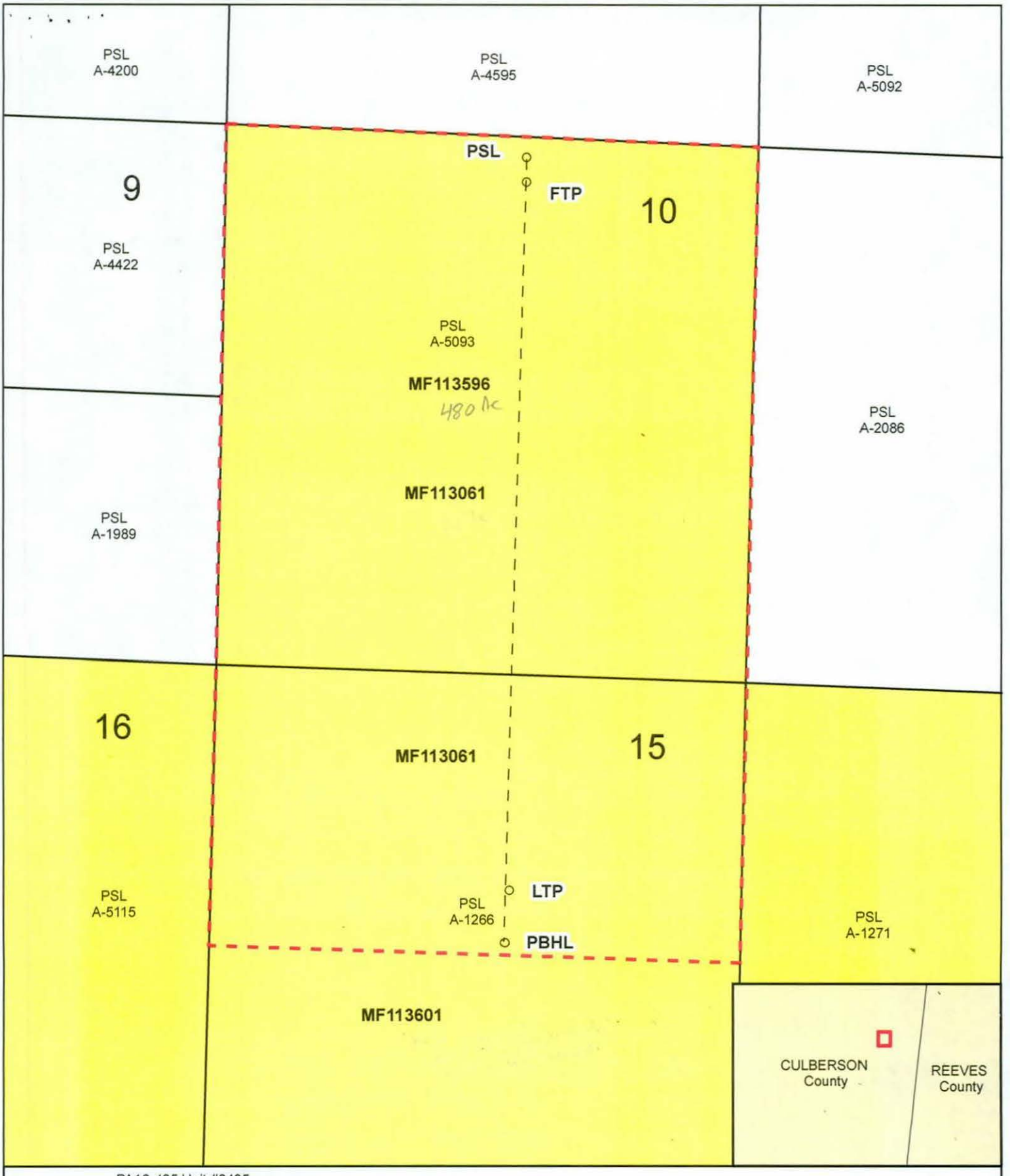
POOLING COMMITTEE RECOMMENDATION:

- The Pooling Committee recommends Board approval of a 12 month temporary oil and gas unit under the above-stated provisions.

Mary Smith - Office of the Attorney General — Date: 10/23/13

Robert Hatter - General Land Office — Date: 10/23/13

David Zimmerman - Office of the Governor — Date: 10/23/13



PA13-435 Unit #6495
BHP Billiton Petroleum
Horseshoe Springs State
113-10 #1H Unit
Ford, West (Wolfcamp) Field
MF113596, MF113601, MF113061
Culberson County, Texas

1,200 600 0 1,200 Feet

The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. This map IS NOT suitable for navigational purposes and does not purport to depict or establish boundaries between private and public land.

Map Generated by:
Zeke Guillen
IS/BAS/GIS
October 2013

TERM POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HORSESHOE SPRINGS STATE 113-10 #1H UNIT
GLO UNIT NO. 6495
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to all depths underlying the surface boundaries of the pooled unit ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it

being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than 962 acres, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of November 5, 2013.

TERM: 9.

Unless this agreement expires earlier pursuant to the terms of the respective leases included as a part of this Agreement, or on such other date approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns, this Agreement shall expire on November 5, 2014. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease, covered by this Agreement.

STATE LAND: 10.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 11.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 12.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

COUNTERPARTS: 13.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 1/21/14

STATE OF TEXAS

Legal
Content
Geology
Executive

By: _____
Jerry Patterson, Commissioner
General Land Office

H.S.T.

Date Executed 11/20/2013

BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP

By: John W. Walsh

John W. Walsh

Its: Attorney in Fact

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on Nov. 20, 2013, by John W. Walsh as Attorney in Fact of BHP Billiton Petroleum Properties (N.A.), LP, a Texas limited partnership on behalf of said partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

Lynn Latiolais

Notary Public in and for the
State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 5th day of November, 2013, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 23rd day of January, 2014.

Stephanie Crenshaw

Secretary of the School Land Board

HTST

Exhibit "A"

Leases In Unit

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended
Lessee: Legend Natural Gas IV, LP
Date: 07/29/2011
Recording Info: Book 106, Page 510, Doc # 67191, Filed: 08/18/2011, Culberson County, Texas
Royalty: 25%

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended
Lessee: Legend Natural Gas IV, LP
Date: 07/29/2011
Recording Info: Book 106, Page 560, Doc # 67196, Filed: 08/18/2011 Culberson County, Texas
Royalty: 25%

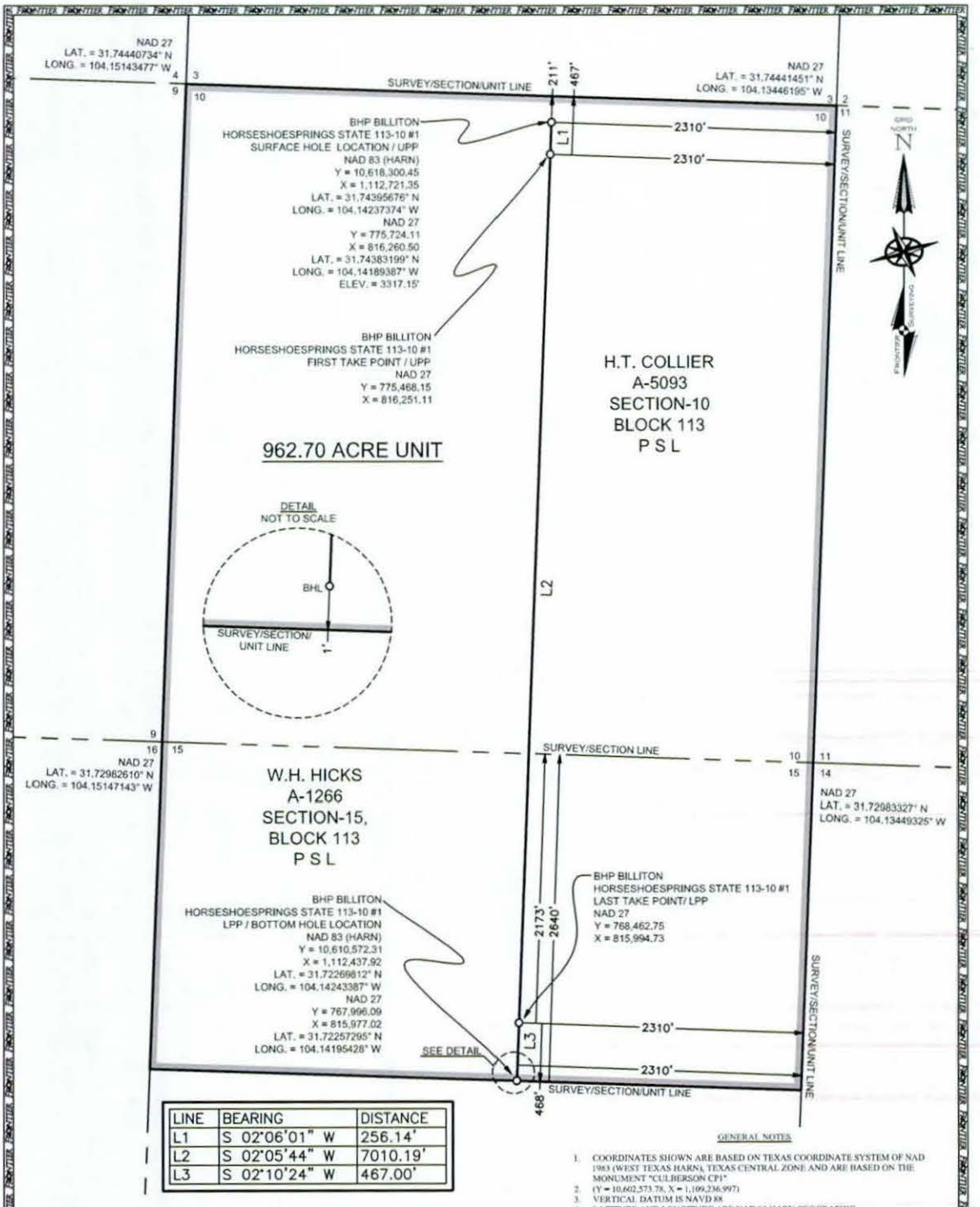
Lessor: State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92
Lessee: Clay Johnson
Date: 07/20/2011
Recording Info: Book 106, Page 466, Doc # 67163, Filed: 08/04/2011, Culberson County, Texas
Royalty: 25%

Exhibit "B"

Description of Lands included in the Pooling Agreement

Tract 1:
All of Section 10, BLK 113, Public School Land Survey, Culberson County Texas.

Tract 2:
The North Half of Section 15, BLK 113, Public School Land Survey, Culberson County, Texas.



LINE	BEARING	DISTANCE
L1	S 02°06'01" W	256.14'
L2	S 02°05'44" W	7010.19'
L3	S 02°10'24" W	467.00'

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CULBERSON CP1"
2. (Y = 10,602,573.78, X = 1,109,236.997)
3. VERTICAL DATUM IS NAVD 88.
4. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
5. AREA,DISTANCES, AND COORDINATES ARE "GRID"
6. UNITS ARE UNITED STATES SURVEY FOOT.
7. COMBINED SCALE FACTOR = 0.999802604
8. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 27 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 08/16/13.THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

PLOT DATE:09-25-13 9:51 AM

PLAT OF:

A WELL LOCATION FOR:

BHP BILLITON Pet (TXLA OP)

HORSESHOESPRINGS STATE 113-10 #1
FORD, WEST (WOLFCAMP)

SITUATED IN SECTION 10, BLOCK 113, THE H.T. COLLIER SURVEY, A-5093, AND SECTION 15, BLOCK 113, THE W.H. HICKS SURVEY, A-1266, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 14.6 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 08/16/13	File Name: 1308031.DWG		
Scale: 1" = 1000'	Surveyed by: AD/MB		
Drawn by: SZC/MC/DP	Checked by: MC		

JOB #: 1308031

FRONTIER
SURVEYING COMPANY
SERVICES: LAND SURVEYING/LOCATIONS/PIPELINES/MAPPING/GPS/GIS
710 BUFFALO STREET, SUITE 700, CORPUS CHRISTI, TEXAS, 78401
PHONE (361) 881 - 8044 FAX (361) 881 - 8367
www.frontiersurveying.com

(14)

File No. M-113061
Pooling Agrmt Packet # 6495
Horseshoe Springs State Unit
Date Filed: 4/3/14
Jerry E. Patterson, Commissioner
By

7.914

175065 0612 1 000051 000201 001/004

Check No.: 203002
Payment Type: DELAY RENTAL

Period Covered: 07/20/2014-07/20/2016
Payment Amount: $416,640.00

14715204

Lease Number: 1044407/002 LSE

Original Lessor: MARY JANE BARRON ET AL

Lease Effective Date: 07/20/2011

Recording Information:

State: TX **County:** Culberson

Check Remarks:
DELAY RENTAL PAYMENT FOR THE 3RD AND 4TH ANNIVERSARY DATE

BLK 113 SEC 14 W/2 (320 ACRES)
BLK 113 SEC 15 S/2 (320 ACRES)
BLK 113 SEC 16 ALL (640 ACRES)
BLK 113 SEC 21 ALL (640 ACRES)
BLK 113 SEC 22 ALL (640 ACRES)

RENTAL PAYMENT (P)
4th & 5th yr.
Proportionately Reduced by acres in unit
see calculations in email, attached

121

For the Credit of:
Owner: COMMISSIONER OF THE TEXAS GENERAL LAND OFFICE ATN MINERAL LEASING
Address: 1700 N CONGRESS AVE
AUSTIN, TX 78701

(BA#):80104210

Payment Amount: $416,640.00

003039

175065 0612 1 000051 000201 001/004

Check No.: 203002
Payment Type: DELAY RENTAL

Period Covered: 07/20/2014-07/20/2016
Payment Amount: $416,640.00

14715204

Lease Number: 1044407/002 LSE

Original Lessor: MARY JANE BARRON ET AL

Lease Effective Date: 07/20/2011

Recording Information:

State: TX **County:** Culberson

Check Remarks:
DELAY RENTAL PAYMENT FOR THE 3RD AND 4TH ANNIVERSARY DATE

BLK 113 SEC 14 W/2 (320 ACRES)
BLK 113 SEC 15 S/2 (320 ACRES)
BLK 113 SEC 16 ALL (640 ACRES)
BLK 113 SEC 21 ALL (640 ACRES)
BLK 113 SEC 22 ALL (640 ACRES)

121

For the Credit of:
Owner: COMMISSIONER OF THE TEXAS GENERAL LAND OFFICE ATN MINERAL LEASING
Address: 1700 N CONGRESS AVE AUSTIN, TX 78701

(BA#):80104210

Payment Amount $416,640.00

VERIFY THE AUTHENTICITY OF THIS MULTI-TONE SECURITY DOCUMENT. CHECK BACKGROUND AREA CHANGES COLOR GRADUALLY FROM TOP TO BOTTOM.

14715204

bhpbilliton

PETROHAWK ENERGY CORPORATION
ATTN LAND ADMINISTRATION
P.O. BOX 22719
HOUSTON, TX 77027-9998

Bank of America 1455 Market St 4th Fl San Francisco CA 94103

32-1
1110 GL

DATE **06/12/2014** CHECK NO. **203002**

AMOUNT **********$416,640.00**

PAY ********416640*DOLLARS AND* 00*CENTS

VOID IF NOT CASHED WITHIN SIX MONTHS OF ISSUE

NON TRANSFERABLE

Owner Call Center: 1-877-311-1443

PAY TO THE ORDER OF
COMMISSIONER OF THE TEXAS GENERAL LAND OFFICE ATN MINERAL LEASING
1700 N CONGRESS AVE
AUSTIN, TX 78701

David Powell
FACSIMILE SIGNATURE

FACSIMILE SIGNATURE

⑈000203002⑈

Linda Price - RE: Delay Rentals

From: "McDonald, Griffin" <Griffin.McDonald@bhpbilliton.com>
To: Linda Price <Linda.Price@GLO.TEXAS.GOV>
Date: 7/10/2014 8:04 AM
Subject: RE: Delay Rentals
Attachments: MARY JANE BARRON LEASE 1044407-002.pdf

Linda:

I have attached a copy of the Mary Jane Barron lease. We are paying on less than the total lease acreage due to the formation of the HORSESHOE SPRINGS STATE 113-10 1H UNIT.

The lease covers the following sections in Block 13:

	Mary Jane's Interest
Sec 10: ALL	160 ac
Sec 14: W/2	80 ac
Sec 15: ALL	160
Sec 16: ALL	160
Sec 21: ALL	160
Sec 22: ALL	160
	880 ac. x 1302 = 1,145,760 x .5 = 572,880.00

The HORSESHOE SPRINGS STATE 113-10 1H UNIT contains all of Sec 10 and the N/2 of Sec 15, so the payment reflects the total Delay Rental less those sections.

The payment was calculated as follows @ $1302/acre:

Sec 10: ALL – Fully contained in unit: $0.00
Sec 14: W/2 – 80 acres = $104,160.00
Sec 15: ALL – N/2 in Unit, Pay on S/2 (80 acres) = $104,160.00
Sec 16: ALL – 160 acres = $208,320.00
Sec 21: ALL – 160 acres = $208,320.00
Sec 22: ALL – 160 acres = $208,320.00
640 x 1302 = 833,280 x .5 = #416,640.00
Total Payment = $833,280.00 ($416,640.00 each to GLO and Mary Jane Barron)

I hope that explains it well and gives you enough information. If you have any further questions, please don't hesitate to email me back or call.

Thank you,

Griffin P. McDonald
Associate Lease Analyst

bhpbilliton
resourcing the future

Permian Production Unit
P.O. Box 22719 Houston, TX 77227-9927
(P): 1-713-966-8020 / (F): 1-713-623-7331
Griffin.Mcdonald@bhpbilliton.com

From: Linda Price [Linda.Price@GLO.TEXAS.GOV]
Sent: Thursday, July 10, 2014 6:20 AM
To: McDonald, Griffin
Subject: Delay Rentals

Griffin:

The GLO has received BHP's check #203002 in the amount of $416,640.00.

GLO's Financial Management Division needs to know what lease it should be credited to. I haven't received any paperwork regarding the payment but the amount of the check and description noted on the check don't quite match the lease our computer system shows for Mary Jane Barron, et al, dated July 20, 2011.

Can you scan and email me a copy of the lease so that I can correctly identify it for the GLO's Financial Management Division and so the lease gets correctly credited with the payments.

Thank you.
Linda

Linda Price, RL
Texas General Land Office
Energy Resources, Mineral Leasing
Phone: (512) 463-5118
Fax: (512) 475-1543
Linda.Price@glo.texas.gov

This message and any attached files may contain information that is confidential and/or subject of legal privilege

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File No. MF113061 (15)

Rentals - 4th & 5th yr.

Date Filed: 07/09/2014

Jerry E. Patterson, Commissioner

By

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JOHN F. PEISERICH†
jpeiserich@perkinstrotter.com

†Also licensed in Texas

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July 8, 2013

BHP Billiton Petroleum (Americas) Inc.
Permian Production Unit
1360 Post Oak Blvd.
Houston, TX 77056-3030

ATTN: Tiffany Wright

Re: Section Ten (10), Block One Hundred-Thirteen (113), Public School Land Survey, Culberson County, Texas (640.0000000 acres more or less); BHP Billiton Petroleum (Americas) Inc. proposed Horseshoe Springs State 113-10 [Matter No. 20389-027]

TITLE OPINION

PT-JFP-S10-B113-Culberson, No. 1

I. INSTRUMENTS EXAMINED

We examined the Abstract prepared for BHP Billiton Petroleum (Americas) Inc. by Red River Oil & Gas, LLC, containing instruments dated up to and including 09/15/2011, and certain additional instruments, as provided (the "**Instruments Examined**"). Based upon our review of the Instruments Examined, and subject to the comments, requirements, and limitations hereinafter set forth, we find that defensible record title to the above-described property is held as shown in this opinion.

II. INDIVIDUAL TRACT OWNERSHIP

TRACT 1

All of Section 10, Block 113, Public School Land Survey, Culberson County, Texas, containing 640.0000000 acres more or less (Reference Deeds: Book: 146, Page: 131; Book: 152, Page: 313; Book: 158, Page: 526; Book: 158, Page: 844; Book: 176, Page: 538).

Surface:	Barron, Mary Jane, Trustee of the Mary Jane Barron Revocable Living Trust	25.0%	160.0000000 ac.
	Harrison, Roddy L., Trustee of The Harrison Trust	75.0%	480.0000000 ac.

Minerals:	The State of Texas	100%	640.0000000 ac.
	TOTAL MINERAL ACRES		640.0000000 ac.

Working Interest:	Interests of The State of Texas, acting by and through its agent, Mary Jane Barron, Trustee of the Mary Jane Barron Revocable Living Trust (Lease A, 25%) • Legend Natural Gas IV, LP, 37.5% net revenue interest, 50% working interest • Petrohawk Properties, LP, 37.5% net revenue interest, 50% working interest
	Interests of The State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of The Harrison Trust (Lease B, 25%) • Legend Natural Gas IV, LP, 37.5% net revenue interest, 50% working interest • Petrohawk Properties, LP, 37.5% net revenue interest, 50% working interest

III. LEASE ANALYSIS

LEASE A:

Dated:	07/20/2011
Recorded:	Book: 106, Page: 466 Doc#: 67163 Filed: 08/04/2011
Lessor:	State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92
Lessee:	Clay Johnson
Assignee:	Legend Natural Gas IV, LP Book: 106, Page: 871 Filed: 10/10/2011 Petrohawk Properties, LP Book: 106, Page: 786 Filed: 10/03/2011
Lands Covered:	Tract 1 and Lands in Multiple Sections
Interest Covered:	25% MI
Total Lease Acres:	3,520.0000000 ac.
Term:	5 Years
Royalty:	1/4th gross
Shut-In Gas Royalty:	Amount equal to double the annual rental amount of $1.00 per acres (being $2.00 per acre), but not less than $1200.00 a year for each well capable of producing oil and gas in payable quantities, payable on or before (1) the expiration of the primary term, (2) 60 days after Lessee ceases production, or (3) 60 days after Lessee completes a drilling or reworking operation, whichever date is latest.
Delay Rental:	Paid Up *(for the first 3 years)*
Depository Bank:	½ to General Land Commission and ½ to Surface Owner
Pooling Clause:	Yes, upon the terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas

	Natural Resources Code 52.151-52.153.
Unusual Provisions:	Relinquishment Act Lease Form; If delay rentals are paid on or before the 3rd anniversary date, the total rental paid shall be $1,144,880.00 (said payment will include pre-payment for the delay rentals for the 4th anniversary date).

LEASE B:

Dated:	07/29/2011
Recorded:	Book: 106, Page: 510 Doc#: 67191 Filed: 08/18/2011
Lessor:	State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of The Harrison Trust Under Trust Indenture dated 04/25/96, as Amended
Lessee:	Legend Natural Gas IV, LP
Assignee:	Petrohawk Properties, LP Book: 106, Page: 786 Filed: 10/03/2011
Lands Covered:	Tract 1 and Lands in Section 16, Block 113
Interest Covered:	75% MI
Total Lease Acres:	1,280.0000000 ac.
Term:	3 Years
Royalty:	1/4th gross
Shut-In Gas Royalty:	Amount equal to double the annual rental provided in lease, but not less than $1200.00 a year for each well capable of producing oil and gas in payable quantities, payable on or before (1) the expiration of the primary term, (2) 60 days after Lessee ceases production, or (3) 60 days after Lessee completes a drilling or reworking operation, whichever date is latest.
Delay Rental:	Paid Up
Depository Bank:	½ to General Land Commission and ½ to Surface Owner
Pooling Clause:	Yes, upon the terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.153.
Unusual Provisions:	Relinquishment Act Lease Form; Lessor has advised that certain, specific, individual(s) shall not be allowed access to the lands herein; Lessee hereby agrees to restrict access to the specific individual(s) defined by Lessee and Lessor agrees to deliver by written request notice to Lessee of the specific individual(s) to be denied access.

IV. PATENT INFORMATION

Date: 11/12/1925
Recorded: 3-patents-618
Patentor: State of Texas
Patentee: H.T. Collier
Description: All of Section 10, Block 113, containing 640.00 acres; further identified as Patent No. 36, Vol. 10-B
Reservation: All Minerals Reserved by the State

V. COMMENTS AND REQUIREMENTS

1. The abstract contains copies of various unreleased oil and gas leases which are beyond their primary term, as listed below. The sections and block (S-B) of lands covered by the leases and occurring outside the section under examination are shown in the last column.

Section Ten (10), Block One Hundred-Thirteen (113), Public School Land Survey, Culberson County, Texas						
Doc #	**Grantor**	**Grantee**	**B**	**P**	**Date of Inst**	**Lands Outside S10-113**
N/A	Edna Jo Scott, Inez June Perry and husband Jud S. Perry, and S. Warren Scott and wife, Margaret Scott, Individually and as agents for the State of Texas	Magnolia Petroleum Company	6	565	7/5/1957	Multiple Sections
57704	Mary Jane Barron Revocable Living Trust, as agent for the State of Texas	The Screwbean, LP	84	827	3/1/2004	S15-B113; S14-B113;
57707	Roddy L. Harrison, Trustee of the Harrison Trust, as agent for the State of Texas	The Screwbean, LP	84	854	3/1/2004	None
59580	Roddy L. Harrison, Trustee of the Harrison Trust, as agent for the State of Texas	Hallwood Energy II, LP	89	642	7/25/2005	None
63509	Mary Jane Barron Revocable Living Trust, as agent for the State of Texas	Archer Oil & Gas, LLC	96	352	6/20/2008	S15-B113; S14-B113;
63731	Roddy L. Harrison, Trustee of the Harrison Trust, as agent for the State of Texas	Hallwood Energy, LP	97	46	7/28/2008	Multiple Sections

REQUIREMENT: You should satisfy yourself that the oil and gas leases tabulated above have expired in accordance with their terms and have not been extended by production.

2. The abstract contains copies of various unreleased mortgages, or deeds of trust within the past thirty (30) years, covering the lands under examination, as listed below.

Mortgagor	Mortgagee	Book	Page	Instrument Date
None	None	NA	NA	None

REQUIREMENT: You should determine on a case-by-case basis, whether you will attempt to obtain agreements subordinating those mortgages or deeds of trust to any leases taken on the lands under examination.

3. INTERESTS OF THE STATE OF TEXAS: The State of Texas reserved all minerals in and under Section 10, Block 113. When land is mineral classified and the State of Texas reserves all minerals, the surface owner is appointed the state's agent for leasing its oil and gas interests. As consideration for such service, the surface owner splits with the state on an equal basis all compensation derived from oil and gas development. H. Philip (Flip) Whitworth,

Leasing and Operating State-Owned Lands for Oil and Gas Development, 16 Tex. Tech L. Rev. 673, 681 (1985). As a result, the surface owner of mineral classified lands cannot sell such acreage and reserve part of the minerals because he owns no minerals to reserve. The present surface owner is the only party who can execute a mineral classified lease and receive compensation. The Relinquishment Act was superseded by the enactment of the Sales Act of 1931. Therefore, the Relinquishment Act applies only to those lands which had been classified as 'mineral' by the GLO and which were originally sold by the State between September 1, 1895, and August 21, 1931. Because the surface owner is the appointed agent for leasing the state's oil and gas, a potential Lessee must know whether land sought to be leased is subject to this statute.

REQUIREMENT: You should obtain a letter or certificate of classification or Certificate of Facts from the GLO confirming Section 10, Block 113, Culberson County, Texas, is mineral classified and provide said letter to us for further review. Otherwise, you should satisfy yourself Section 10, Block 113 is mineral classified and the State of Texas owns all minerals

4. INTERESTS OF WARREN AND EDNA JO SCOTT: In 1946, Warren A. Scott acquired the surface estate of Tract 1 (Book/Page 49/297). Warren A. Scott died on March 11, 1952, and devised his interests to his children, namely Inez June Perry and Samuel Warren Scott (Book/Page 65/11). The Instruments Examined include an Order in which the probate court ordered, adjudged, and decreed that Edna Jo Scott be vested with a ½ interest in the surface estate of Tract 1 and Inez June Perry and Samuel Warren Scott each be vested with a 1/4th interest in the surface estate of Tract 1 (Civil No. 8603, Ward County, Texas).

REQUIREMENT: None. For explanation only.

5. INTERESTS OF INEZ JUNE PERRY: In 1952, Inez June Perry acquired a 1/4th interest in the surface estate of Tract 1 (*See above comment*). There are no further conveyances of record out of Inez June Perry. Inez June Perry died in 1999 and devised her estate as follows: 10% to Betty Perry, 30% to Kelly Perry, and the remainder of her estate to her son Andrew Ralph Perry (Probate No. 99-1237-2, Tarrant County, Texas). In 2002, Kelly Perry conveyed all her interest in Tract 1 to Andrew Ralph Perry (Book/Page 158/526). Andrew Ralph Perry and Betty A. Perry then conveyed all their interests in Tract 1 to Roddy L. Harrison, Trustee of the Harrison Trust (Book/Page 158/844).

REQUIREMENT: None. For explanation only.

6. INTERESTS OF SAMUEL WARREN SCOTT: In 1952, Samuel Warren Scott acquired a 1/4th interest in the surface estate of Tract 1 as his separate property (*See above comments*). There are no further conveyances of record out of Samuel Warren Scott. Samuel Warren Scott died on December 20, 1979, and devised his entire estate to his wife, Margaret Jane Scott (Probate No. 356, Culberson County, Texas). However, Margaret Scott disclaimed and renounced any and all right, title or interest acquired in Tract 1 as the sole devisee under the Last Will and Testament of Samuel Warren Scott. Therefore, Samuel Warren Scott's children, Mary Jane Barron and Samuel Warren Scott, Jr. each acquired a 1/8th interest in the surface estate of Tract 1.

REQUIREMENT: None. For explanation only.

7. INTERESTS OF SAMUEL WARREN SCOTT, JR.: In 1979, Samuel Warren Scott, Jr. acquired a 1/8th interest in the surface estate of Tract 1 (*See above comment*). There are no further conveyances of record out of Samuel Warren Scott, Jr. Samuel Warren Scott, Jr. died on April 24, 1997, and devised his 1/8th interest to his sister, Mary Jane Barron (Prob. No. 577, County Court of Culberson County, Texas).

REQUIREMENT: None. For explanation only.

8. POOLING OF RELINQUISHMENT ACT LANDS: The Relinquishment Act Lease Form grants Lessee the right to pool or unitize the royalty interests of the owners of the soil under each lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under each lease pursuant to Texas Natural Resources Code 52.151-52.154. The School Land Board must approve the pooling of state leases and the Commissioner of the General Land Office must find that the pooling is in the best interest of the state before it can be validly included in a unit.

9. We express no opinion with regard to the effect of restrictive covenants, zoning ordinances, or similar use limitations contained in instruments provided or in place.

10. SURFACE OWNERSHIP AND POSSESSION. We have been provided with no evidence of actual possession of the surface, and express no opinion regarding actual possession. You are charged with notice of the rights of the parties in possession. Therefore, before making entry on the land, you should inquire as to the rights of anyone found in possession and, if there is a conflict with your right of entry under the basic Oil and Gas Leases, this matter should be referred to us for further advice.

11. BHP Billiton Petroleum (Americas) Inc. requested that the examining attorney base this Opinion solely upon an examination of the instruments provided to us in the abstract. Therefore, we prepared this Opinion in reliance upon the validity, accuracy and completeness of the instruments, documents and materials examined. We have not conducted an independent review or investigation of any further instruments, records, documents, or proceedings unless otherwise stated in this Opinion. We have relied on the index accompanying the abstract provided as to the identification of instruments and the tracts to which they are related. We are not responsible for mistakes in indexing instruments. This opinion is specifically subject to all limitations of the abstract provided, of whatsoever kind or nature. We express no opinion as to whether the abstract provided is complete or properly indexed.

12. BHP Billiton Petroleum (Americas) Inc. completed the acquisition of Petrohawk Energy Corporation in August of 2011 through a short-form merger of its wholly owned subsidiary with and into Petrohawk, with Petrohawk being the surviving corporation as a wholly owned subsidiary of BHP Billiton.

13. Decimal interests and acreages. We list decimal interests or acreages in the tract analyses of this opinion solely for your convenience. We do not guarantee the accuracy or precision of such acreage amounts. Due to the nature of fractional and decimal interests, limitations of the legal descriptions provided, limitations of legal descriptions in the instruments provided, lack of accurate surveys, and significant digits displayed in this opinion, there are some inherent

rounding errors and/or corrections that may be necessary to achieve the accurate sum of such interests for the tract described.

COMMENT: This is advisory.

GENERAL LIMITATIONS AND COMMENTS

1. This opinion is based on the assumption that the actual use, occupancy, payment of taxes, and possession of the property under examination is consistent with what appears of record in the Instruments Examined.

2. This opinion does not certify title with respect to, and is given subject to:

a. Leases or other tenancies presently existing of which you have actual or constructive knowledge, not otherwise appearing or reflected of record;

b. Zoning ordinances and other use limitations;

c. Facts which would be revealed by an accurate survey and/or visual inspection of the premises;

d. Federal, state and local environmental protection statutes;

e. Judgments, orders, or like proceedings in any United States District Court or Bankruptcy Court or other courts not provided to examiner; and

f. Taxes, special assessment, or other type of lien or encumbrance, which are not shown as existing liens in the Instruments Examined.

3. Affidavits of Heirship. In obtaining an Affidavit of Heirship, it is desirable for the affiant to be a person related to the decedent but who does not inherit from the decedent. If none is available, a person possessing personal knowledge of the decedent is the next choice. If neither is available, an interested heir can be used. In the latter case, it is also desirable to obtain a supporting affidavit from a person who has no interest in the estate. Tex. Prob. Code § 52A sets out a suggested form for an Affidavit of Heirship.

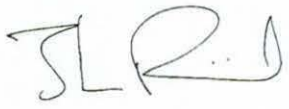
4. The term "mineral owner" as used herein means the owner of oil, gas, and related substances unless otherwise specifically stated.

5. This opinion is based solely on an examination of the Instruments Examined. This opinion does not certify as to parties in possession, surveys, boundaries, capacities of the parties, payment of taxes, or other matters not apparent from the Instruments Examined.

6. This opinion is rendered solely and exclusively for the benefit of BHP Billiton Petroleum (Americas) Inc., and is not a representation of the title of the property to any other party.

Sincerely,

PERKINS & TROTTER, PLLC



John F. Peiserich, for the firm

JFP/cah

File No. MF 113061
Title Opinion Sect. 10

Date Filed: 7/8/13
Jerry E. Patterson, Commissioner

By SSD

PERKINS & TROTTER PLLC

JOHN F. PEISERICH†
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†Also licensed in Texas

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July 8, 2013

BHP Billiton Petroleum (Americas) Inc.
Permian Production Unit
1360 Post Oak Blvd.
Houston, TX 77056-3030

ATTN: Tiffany Wright

Re: Section Fifteen (15), Block One Hundred-Thirteen (113), Public School Land Survey, Culberson County, Texas (640.0000000 acres more or less); BHP Billiton Petroleum (Americas) Inc. proposed North Reeves TBD 113-15 [Matter No. 20389-029]

TITLE OPINION

PT-JFP-S15-B113-Culberson, No. 1

I. INSTRUMENTS EXAMINED

We examined the Abstract prepared for BHP Billiton Petroleum (Americas) Inc. by Red River Oil and Gas, LLC, containing instruments dated up to and including 09/15/2011, and certain additional instruments, as provided (the "**Instruments Examined**"). Based upon our review of the Instruments Examined, and subject to the comments, requirements, and limitations hereinafter set forth, we find that defensible record title to the above-described property is held as shown in this opinion.

II. INDIVIDUAL TRACT OWNERSHIP

TRACT 1

All of Section 15, Block 113, Public School Land Survey, Culberson County, Texas, containing 640.0000000 acres more or less (Reference Deeds: Book: 146, Page: 131; Book: 152, Page: 313; Book: 158, Page: 526; Book: 158, Page: 844; Book: 176, Page: 538).

Surface:	Barron, Mary Jane, Trustee of the Mary Jane Barron Revocable Living Trust	25.0%	160.0000000 ac.
	Harrison, Roddy L., Trustee of The Harrison Trust	75.0%	480.0000000 ac.

Minerals:	The State of Texas	100%	640.0000000 ac.
	TOTAL MINERAL ACRES		640.0000000 ac.

Working Interest:	Interests of The State of Texas, acting by and through its agent, Mary Jane Barron, Trustee of the Mary Jane Barron Revocable Living Trust (Lease A, 25%) • Legend Natural Gas IV, LP, 37.5% net revenue interest, 50% working interest • Petrohawk Properties, LP, 37.5% net revenue interest, 50% working interest
	Interests of The State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of The Harrison Trust (Lease B, 25%) • Legend Natural Gas IV, LP, 37.5% net revenue interest, 50% working interest • Petrohawk Properties, LP, 37.5% net revenue interest, 50% working interest

III. LEASE ANALYSIS

LEASE A:

Dated:	07/20/2011
Recorded:	Book: 106, Page: 466 Doc#: 67163 Filed: 08/04/2011
Lessor:	State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92
Lessee:	Clay Johnson
Assignee:	Legend Natural Gas IV, LP Book: 106, Page: 871 Filed: 10/10/2011 Petrohawk Properties, LP Book: 106, Page: 786 Filed: 10/03/2011
Lands Covered:	Tract 1 and Lands in Multiple Sections
Interest Covered:	25% MI
Total Lease Acres:	3,520.0000000 ac.
Term:	5 Years
Royalty:	$1/4^{th}$ gross
Shut-In Gas Royalty:	Amount equal to double the annual rental amount of $1.00 per acres (being $2.00 per acre), but not less than $1200.00 a year for each well capable of producing oil and gas in payable quantities, payable on or before (1) the expiration of the primary term, (2) 60 days after Lessee ceases production, or (3) 60 days after Lessee completes a drilling or reworking operation, whichever date is latest.
Delay Rental:	Paid Up *(for the first 3 years)*
Depository Bank:	½ to General Land Commission and ½ to Surface Owner
Pooling Clause:	Yes, upon the terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas

	Natural Resources Code 52.151-52.153.
Unusual Provisions:	Relinquishment Act Lease Form; If delay rentals are paid on or before the 3rd anniversary date, the total rental paid shall be $1,144,880.00 (said payment will include pre-payment for the delay rentals for the 4th anniversary date).

LEASE B:

Dated:	07/29/2011
Recorded:	Book: 106, Page: 560 Doc#: 67196 Filed: 08/18/2011
Lessor:	State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of The Harrison Trust Under Trust Indenture dated 04/25/96, as Amended
Lessee:	Legend Natural Gas IV, LP
Assignee:	Petrohawk Properties, LP Book: 106, Page: 786 Filed: 10/03/2011
Lands Covered:	Tract 1 and Lands in Section 22, Block 113
Interest Covered:	75% MI
Total Lease Acres:	1,280.0000000 ac.
Term:	3 Years
Royalty:	1/4th gross
Shut-In Gas Royalty:	Amount equal to double the annual rental provided in lease, but not less than $1200.00 a year for each well capable of producing oil and gas in payable quantities, payable on or before (1) the expiration of the primary term, (2) 60 days after Lessee ceases production, or (3) 60 days after Lessee completes a drilling or reworking operation, whichever date is latest.
Delay Rental:	Paid Up
Depository Bank:	½ to General Land Commission and ½ to Surface Owner
Pooling Clause:	Yes, upon the terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.153.
Unusual Provisions:	Relinquishment Act Lease Form; Lessor has advised that certain, specific, individual(s) shall not be allowed access to the lands herein; Lessee hereby agrees to restrict access to the specific individual(s) defined by Lessee and Lessor agrees to deliver by written request notice to Lessee of the specific individual(s) to be denied access.

IV. PATENT INFORMATION

Date: 06/29/1908
Recorded: 3-patents-370
Patentor: State of Texas
Patentee: W.H. Hicks
Description: All Section 15, Block 113, containing 640.00 acres; further identified as Patent No. 466, Vol. 2-B
Reservation: All Minerals Reserved by the State

V. COMMENTS AND REQUIREMENTS

1. The abstract contains copies of various unreleased oil and gas leases which are beyond their primary term, as listed below. The sections and block (S-B) of lands covered by the leases and occurring outside the section under examination are shown in the last column.

Section Fifteen (15), Block One Hundred-Thirteen (113), Public School Land Survey, Culberson County, Texas						
Doc #	**Grantor**	**Grantee**	**B**	**P**	**Date of Inst**	**Lands Outside S15-113**
N/A	J. W. Atkins and H. E. Atkins	J. H. McCrea	32	482	9/3/1926	S13-B113; S14-B113;
57704	Mary Jane Barron Revocable Living Trust, as agent for the State of Texas	The Screwbean, LP	84	827	3/1/2004	S10-B113; S14-B113;
57709	Roddy L. Harrison, Trustee of the Harrison Trust, as agent for the State of Texas	The Screwbean, LP	84	872	3/1/2004	S14-B113
59596	Roddy L. Harrison, Trustee of the Harrison Trust, as agent for the State of Texas	Hallwood Energy II, LP	89	802	7/25/2005	None
63509	Mary Jane Barron Revocable Living Trust, as agent for the State of Texas	Archer Oil & Gas, LLC	96	352	6/20/2008	S10-B113; S14-B113;

REQUIREMENT: You should satisfy yourself that the oil and gas leases tabulated above have expired in accordance with their terms and have not been extended by production.

2. INTERESTS OF THE STATE OF TEXAS: The State of Texas reserved all minerals in and under Tract 1. When land is mineral classified and the State of Texas reserves all minerals, the surface owner is appointed the state's agent for leasing its oil and gas interests. As consideration for such service, the surface owner splits with the state on an equal basis all compensation derived from oil and gas development. H. Philip (Flip) Whitworth, Leasing and Operating State-Owned Lands for Oil and Gas Development, 16 Tex. Tech L. Rev. 673, 681 (1985). As a result, the surface owner of mineral classified lands cannot sell such acreage and reserve part of the minerals because he owns no minerals to reserve. The present surface owner is the only party who can execute a mineral classified lease and receive compensation. The Relinquishment Act was superseded by the enactment of the Sales Act of 1931. Therefore, the Relinquishment Act applies only to those lands which had been classified as 'mineral' by the GLO and which were originally sold by the State between September 1, 1895, and August 21, 1931. Because the surface owner is the appointed agent for leasing the state's oil and gas, a potential Lessee must know whether land sought to be leased is subject to this statute.

REQUIREMENT: You should obtain a letter or certificate of classification or Certificate of Facts from the GLO confirming Section 15, Block 113, Culberson County, Texas, is mineral classified and provide said letter to us for further review. Otherwise, you should satisfy yourself Tract 1 is mineral classified and the State of Texas owns all minerals.

3. INTERESTS OF H.E. ATKINS: In 1917, H.E. Atkins acquired a $1/4^{th}$ interest in the surface estate of Tract 1 (Book/Page 18/103). There are no further conveyances of record out of

H.E. Atkins. In 1935, H.E. Atkins and Grace Atkins Hodges conveyed all of the separate estate "inherited from our father, H.E. Atkins, who died on or about February 12, 1933" to George P. Atkins (Book/Page 41/104). The Instruments Examined also include an affidavit of death and heirship for H.E. Atkins indicating he died intestate in 1933 leaving as his sole and only heirs George Atkins, H.E. Atkins, and Grace Atkins Hodges (Book/Page 49/187). We relied on the affidavit to determine the death and heirship of H.E. Atkins.

REQUIREMENT: You should concur in our reliance on the affidavit to determine the death and heirship of H.E. Atkins or provide us evidence to the contrary.

4. INTERESTS OF H.M. JOHNSON: In 1917, H.M. Johnson owned a ½ interest in the surface estate of Tract 1 (Book/Page 18/64; 18/103). There are no further conveyances of record out of H.M. Johnson. The Instruments Examined include an affidavit of death and heirship indicating H.M. Johnson died intestate on August 27, 1918, leaving as his sole and only heirs Minnie Harper (widow), Garland Johnson, and Prentice M. Johnson (Book/Page 46/591). We relied on the affidavit to determine the death and heirship of H.M. Johnson. In 1938, the heirs of H.M. Johnson conveyed their interest in Tract 1 to C.M. Caldwell (Book/Page 46/587-589).

REQUIREMENT: You should concur in our reliance on the affidavit to determine the death and heirship of H.M. Johnson or provide us evidence to the contrary.

5. INTERESTS OF WARREN A. SCOTT: In 1946, Warren A. Scott acquired the surface estate of Tract 1 (Book/Page 50/438). Warren A. Scott died on March 11, 1952, and devised his interests to his children, namely Inez June Perry and Samuel Warren Scott (Book/Page 65/11). The Instruments Examined include an Order in which the probate court ordered, adjudged, and decreed that Edna Jo Scott be vested with a ½ interest in the surface estate of Tract 1 and Inez June Perry and Samuel Warren Scott each be vested with a 1/4th interest in the surface estate of Tract 1 (Civil No. 8603, Ward County, Texas).

REQUIREMENT: None. For explanation only.

6. INTERESTS OF INEZ JUNE PERRY: In 1952, Inez June Perry acquired a 1/4th interest in the surface estate of Tract 1 (*See above comment*). There are no further conveyances of record out of Inez June Perry. The Examiner has reviewed, in another section, probate records for the Estate of Inez June Perry. Inez June Perry died in 1999 and devised her estate as follows: 10% to Betty Perry, 30% to Kelly Perry, and the remainder of her estate to her son Andrew Ralph Perry (Probate No. 99-1237-2, Tarrant County, Texas). In 2002, Kelly Perry conveyed all her interest in Tract 1 to Andrew Ralph Perry (Book/Page 158/526). Andrew Ralph Perry and Betty A. Perry then conveyed all their interests to Roddy L. Harrison, Trustee of the Harrison Trust (Book/Page 158/844).

REQUIREMENT: None. For explanation only.

7. INTERESTS OF SAMUEL WARREN SCOTT: In 1952, Samuel Warren Scott acquired a 1/4th interest in the surface estate of Tract 1 as his separate property (Book/Page 65/7; *Also See above comments*). There are no further conveyances of record out of Samuel Warren Scott. Samuel Warren Scott died on December 20, 1979, and devised his entire estate to his wife, Margaret Jane Scott (Probate No. 356, Culberson County, Texas). However, Margaret Scott disclaimed and renounced any and all right, title or interest acquired in Tract 1 as the sole

devisee under the Last Will and Testament of Samuel Warren Scott (Book/Page 9/275). Therefore, Samuel Warren Scott's children, Mary Jane Barron and Samuel Warren Scott, Jr. each acquired a 1/8th interest in the surface estate of Tract 1.

REQUIREMENT: None. For explanation only.

8. INTERESTS OF SAMUEL WARREN SCOTT, JR.: In 1979, Samuel Warren Scott, Jr. acquired a 1/8th interest in the surface estate of Tract 1 (*See above comment*). There are no further conveyances of record out of Samuel Warren Scott, Jr. Samuel Warren Scott, Jr. died on April 24, 1997, and devised his 1/8th interest to his sister, Mary Jane Barron (Prob. No. 577, County Court of Culberson County, Texas).

REQUIREMENT: None. For explanation only.

9. POOLING OF RELINQUISHMENT ACT LANDS: The Relinquishment Act Lease Form grants Lessee the right to pool or unitize the royalty interests of the owners of the soil under each lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under each lease pursuant to Texas Natural Resources Code 52.151-52.154. The School Land Board must approve the pooling of state leases and the Commissioner of the General Land Office must find that the pooling is in the best interest of the state before it can be validly included in a unit.

10. We express no opinion with regard to the effect of restrictive covenants, zoning ordinances, or similar use limitations contained in instruments provided or in place.

11. SURFACE OWNERSHIP AND POSSESSION. We have been provided with no evidence of actual possession of the surface, and express no opinion regarding actual possession. You are charged with notice of the rights of the parties in possession. Therefore, before making entry on the land, you should inquire as to the rights of anyone found in possession and, if there is a conflict with your right of entry under the basic Oil and Gas Leases, this matter should be referred to us for further advice.

12. BHP Billiton Petroleum (Americas) Inc. requested that the examining attorney base this Opinion solely upon an examination of the instruments provided to us in the abstract. Therefore, we prepared this Opinion in reliance upon the validity, accuracy and completeness of the instruments, documents and materials examined. We have not conducted an independent review or investigation of any further instruments, records, documents, or proceedings unless otherwise stated in this Opinion. We have relied on the index accompanying the abstract provided as to the identification of instruments and the tracts to which they are related. We are not responsible for mistakes in indexing instruments. This opinion is specifically subject to all limitations of the abstract provided, of whatsoever kind or nature. We express no opinion as to whether the abstract provided is complete or properly indexed.

13. BHP Billiton Petroleum (Americas) Inc. completed the acquisition of Petrohawk Energy Corporation in August of 2011 through a short-form merger of its wholly owned subsidiary with and into Petrohawk, with Petrohawk being the surviving corporation as a wholly owned subsidiary of BHP Billiton.

14. Decimal interests and acreages. We list decimal interests or acreages in the tract analyses of this opinion solely for your convenience. We do not guarantee the accuracy or precision of such acreage amounts. Due to the nature of fractional and decimal interests, limitations of the legal descriptions provided, limitations of legal descriptions in the instruments provided, lack of accurate surveys, and significant digits displayed in this opinion, there are some inherent rounding errors and/or corrections that may be necessary to achieve the accurate sum of such interests for the tract described.

COMMENT: This is advisory.

GENERAL LIMITATIONS AND COMMENTS

1. This opinion is based on the assumption that the actual use, occupancy, payment of taxes, and possession of the property under examination is consistent with what appears of record in the Instruments Examined.

2. This opinion does not certify title with respect to, and is given subject to:

a. Leases or other tenancies presently existing of which you have actual or constructive knowledge, not otherwise appearing or reflected of record;

b. Zoning ordinances and other use limitations;

c. Facts which would be revealed by an accurate survey and/or visual inspection of the premises;

d. Federal, state and local environmental protection statutes;

e. Judgments, orders, or like proceedings in any United States District Court or Bankruptcy Court or other courts not provided to examiner; and

f. Taxes, special assessment, or other type of lien or encumbrance, which are not shown as existing liens in the Instruments Examined.

3. Affidavits of Heirship. In obtaining an Affidavit of Heirship, it is desirable for the affiant to be a person related to the decedent but who does not inherit from the decedent. If none is available, a person possessing personal knowledge of the decedent is the next choice. If neither is available, an interested heir can be used. In the latter case, it is also desirable to obtain a supporting affidavit from a person who has no interest in the estate. Tex. Prob. Code § 52A sets out a suggested form for an Affidavit of Heirship.

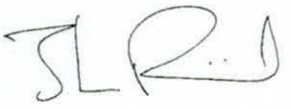
4. The term "mineral owner" as used herein means the owner of oil, gas, and related substances unless otherwise specifically stated.

5. This opinion is based solely on an examination of the Instruments Examined. This opinion does not certify as to parties in possession, surveys, boundaries, capacities of the parties, payment of taxes, or other matters not apparent from the Instruments Examined.

6. This opinion is rendered solely and exclusively for the benefit of BHP Billiton Petroleum (Americas) Inc., and is not a representation of the title of the property to any other party.

Sincerely,

PERKINS & TROTTER, PLLC



John F. Peiserich, for the firm

JFP/cah

17.

File No. MF 113061
Title Opinion - Sec. 15

Date Filed: 7/8/13
Jerry E. Patterson, Commissioner

By SSD

From: Carl Bonn
To: Arellano, Jesse
BC Bonn, Carl
Date: 12/15/2014 8:20 AM
Subject: Fwd: Unit 6495 Horseshoe Springs State 113 - ADD to GIS
Attachments: Bonn, Carl.vcf

Jesse,

I sent the email below regarding Unit 6495 being a producing unit in Alamo and not appearing on GIS at all (not even as a Historical Unit). I spoke to Harriet and she said the Unit was a temporary Unit and never should have been Producing in Alamo. We updated the unit from Producing to expired effective 11/5/14. Please Add Unit 6495 as Historical in GIS since it was replaced by permanent Unit 7222. Harriet agreed to handle the Active vs Producing acreage amounts under MF113596 since only 480 ac is showing as producing under Unit 7222.

Thanks for adding Unit 7222 to GIS in accordance with notes in Alamo 12/09/14. I placed a calender note for Unit 6763 (Active on Alamo and in GIS) under an Orderly Development Agreement to be reviewed 4/01/15.

Thank you,
CB

Carl Bonn, CPL
Landman, Energy Resources
Texas General Land Office
1700 N CongressAustinTX 78701
P.O. Box 12873 Austin, TX 78711
>Fax512 475-1543Office 512 463-5407

>>> Carl Bonn 12/8/2014 1:28 PM >>>
Jesse,
The referenced unit is producing and yet does not appear on GIS.
Please check it out.
TY
CB

18

File No. MF 113061
email to JA

Date Filed: 12-15-14
Jerry Patterson, Commissioner
By C Bonn

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

UPA148545

Unit Number	*7222*		
Operator Name	*Bhp Billiton Petroleum Properties (N.A.), LP*	*Effective Date*	*11/05/2014*
Customer ID	*C000079756*	*Unitized For*	*Oil And Gas*
Unit Name	*Horseshoe Springs State 113-10 # 1H Unit*	*Unit Term*	
County 1	*Culberson*	*RRC District 1*	*08*
County 2		*RRC District 2*	
County 3		*RRC District 3*	
County 4		*RRC District 4*	
Unit type	*Permanent*		
State Net Revenue Interest	*0.12500000*		
State Part in Unit	*1.00000000*		
Unit Depth	*Specified Depths*		
From Depth	*0 Surface*		
To Depth	*10637 TVD*		

Old Unit Number	*Inactive Status Date*
6495	11/5/2014

Well

Formation *Base of Wolfcamp*

Participation Basis *Surface Acreage*

If Excluions Apply: See Remarks

Lease Number	*Tract No*	*Lease Acres in Unit*	*Total Unit Acres*	*Tract Participation*	*Lease Royalty*	*Tract Royalty Participation*	*Royalty Rate Reduction Clause*
MF113596	1	480.000000	962.700000	0.49859769	0.12500000	0.06232471	No
MF113061	2	241.350000	962.700000	0.25070115	0.12500000	0.03133764	No
MF113601	3	241.350000	962.700000	0.25070115	0.12500000	0.03133764	No

API Number
4210932619 ✓

Remarks:

Prepared By:	REW	*Prepared Date:*	12-9-14
GLO Base Updated By:	REW	*GLO Base Date:*	12-9-14
RAM Approval By:	VDD	*RAM Approval Date:*	12/19/14
GIS By:	MC	*GIS Date:*	1-14-15
Well Inventory By:	MMB	*WI Date:*	12/9/14

Pooling Committee Report

To:	School Land Board	UPA148545
Date of Board Meeting:	12/09/2014	Unit Number: 7222
Effective Date:	11/05/2014	
Unit Expiration Date:		
Applicant:	BHP Billiton Petroleum Properties (N.A.), LP	
Attorney Rep:		
Operator:	Bhp Billiton Petroleum Properties (N.a.), Lp	
Unit Name:	Horseshoe Springs State 113-10 # 1H Unit	
Field Name:	Ford, West (Wolfcamp)	

County: Culberson

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF113061	0.12500000	07/20/2016	5 years	880.000000	241.350000	0.03133764
RAL	MF113596	0.12500000	07/29/2014	3 years	960.000000	480.000000	0.06232471
RAL	MF113601	0.12500000	07/29/2014	3 years	960.000000	241.350000	0.03133764

Private Acres:	0.000000
State Acres:	962.700000
Total Unit Acres:	962.700000

Participation Basis:	Surface Acreage
Surface Acreage	
State Acreage:	100.00%
State Net Revenue Interest:	12.50%

Unit Type:	Unitized for:
Permanent	Oil And Gas
Term:	

RRC Rules:	Spacing Acres:
Yes	1445 acres for a 7500 foot lateral

Working File Number: UPA148545

REMARKS:

- BHP Billiton Petroleum Properties (N.A.), LP is requesting permanent oil and gas pooling from the surface to 10,637 feet TVD as seen on the Devon Energy Production Company, LP Sebring 60-1-47 well No. 1 well log (42-109-32367) in order to test the Wolfcamp Formation.
- The School Land Board approved 12-month temporary oil and gas pooling to all depths on November 5, 2013.
- The unit well was completed on 12/29/2013 and was tested for 3,643 MCFGPD. The well has produced 97,887 BO and 688 MMCFG from December 2013 to August 2014.
- With approval of the unit the State's unit royalty participation will be 12.50%.
- The State will participate on a unitized basis from the date of first production.
- The applicant agrees to commence drilling operations on 4 unit wells, with each well being spud within 1 year of the completion of the previous well.

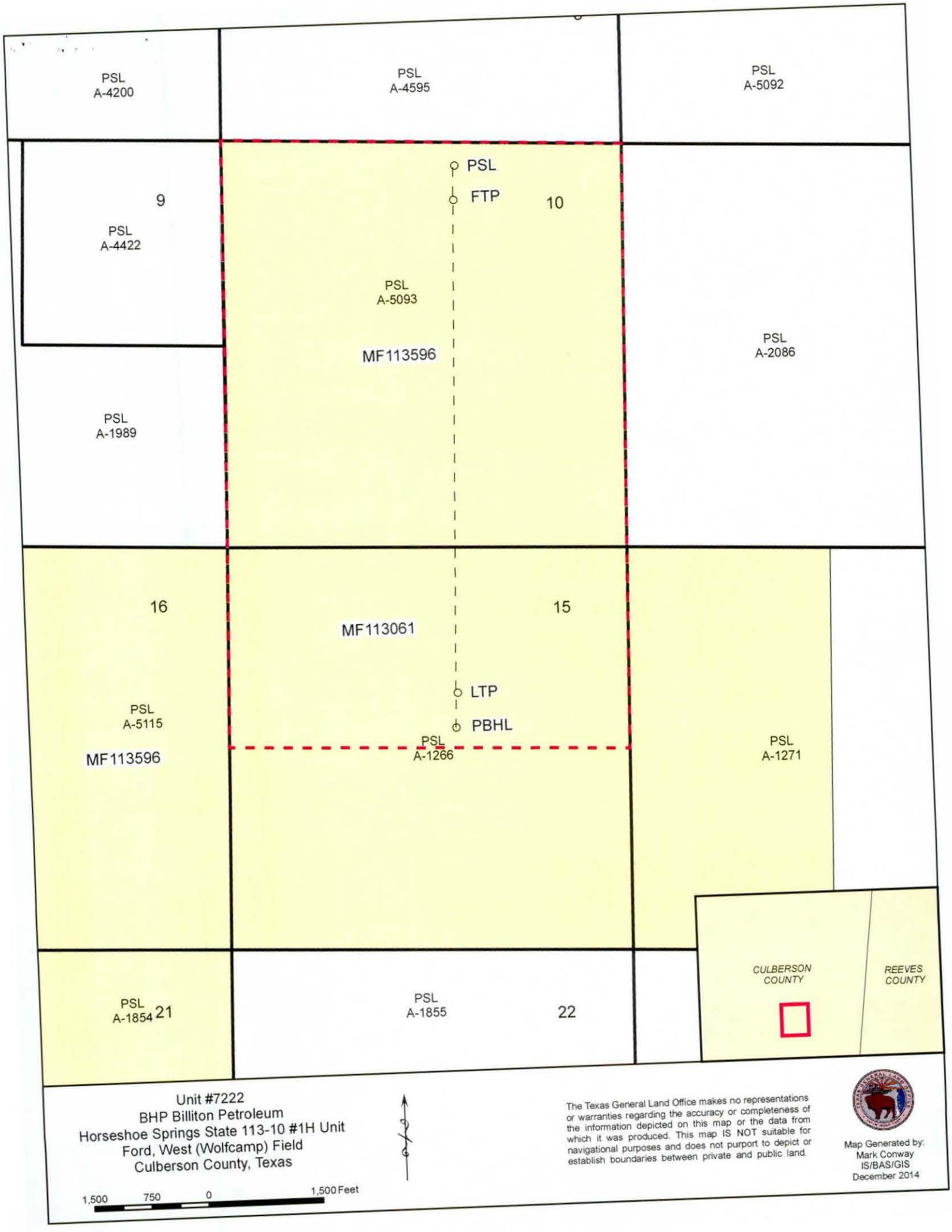
POOLING COMMITTEE RECOMMENDATION:

The Pooling Committee recommends Board approval of a permanent oil and gas unit under the above-stated provisions.

Mary Smith - Office of the Attorney General — Date: 11/18/14

Robert Hatter - General Land Office — Date: 11/18/14

David Zimmerman - Office of the Governor — Date: 11/18/14


PSL
A-4200
PSL
A-4595
PSL
A-5092
9
PSL
A-4422
PSL
FTP
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PSL
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MF113596
PSL
A-2086
PSL
A-1989
16
MF113061
15
LTP
PBHL
PSL
A-5115
MF113596
PSL
A-1266
PSL
A-1271
CULBERSON
COUNTY
REEVES
COUNTY
PSL
A-1854
21
PSL
A-1855
22
Unit #7222
BHP Billiton Petroleum
Horseshoe Springs State 113-10 #1H Unit
Ford, West (Wolfcamp) Field
Culberson County, Texas
1,500
750
0
1,500 Feet
The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. This map IS NOT suitable for navigational purposes and does not purport to depict or establish boundaries between private and public land.
Map Generated by:
Mark Conway
IS/BAS/GIS
December 2014

POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HORSESHOE SPRINGS STATE 113-10 #1H UNIT
GLO UNIT NO. 7222
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C". The unit description is subject to the provisions of Addendum "A".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to those depths underlying the surface boundaries of the pooled unit from the surface to the stratigraphic equivalent of the base of the Wolfcamp Formation, which is seen at a depth of 10,637 feet on the log of the Devon Energy Production Company, LP, Sebring 60-1-47 Well No. 1, API #42-109-32367 ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement. In the event the unitized area covered by this Agreement is maintained in force by drilling or reworking operations conducted on a directional well drilled under the unitized area from a surface location on adjacent or adjoining lands not included within the boundaries of the unitized area, such operations shall be considered to have been commenced on the unitized area when drilling is commenced on the adjacent or adjoining land for the purpose of directionally drilling under the unitized area and production of oil or gas from the unitized area through any directional well surfaced on adjacent or adjoining land or drilling or reworking of any such directional well shall be considered production or drilling or reworking operations, as the case may be, on the unitized area for all purposes under this Agreement. Nothing in this Agreement is intended or shall be construed as granting to Lessee any leasehold interest, easements, or other rights in or with respect to any such adjacent or adjoining land in addition to any such leasehold interests, easements, or other rights which the lessee, operator or other interest owner in the unitized area may have lawfully acquired from the state or others.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than 962 acres, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of November 5, 2014.

TERM: 9.

This Agreement shall remain in effect so long as the pooled mineral is being produced from said unit, or so long as all leases included in the pooled unit are maintained in force by payment of delay rentals or shut-in oil or gas well royalties, by drilling or rework, or by other means, in accordance with the terms of said leases. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease covered by this Agreement.

SPECIAL TERMS AND CONDITIONS: 10.

Notwithstanding anything contained herein to the contrary, this Agreement is subject to the terms and conditions of the attached Addendum "A".

STATE LAND: 11.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 12.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 13.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

SUBJECT TO EXPLORATION AGREEMENT: 14.

This Pooling Agreement is subject to that certain Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit effective July 18, 2014, said Unit Agreement being on file in the Archives and Records of the Texas General Land office in Mineral file M-112402.

COUNTERPARTS: 15.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 12/22/14

STATE OF TEXAS

Legal
Content
Geology
Executive

By: _____
Jerry E. Patterson, Commissioner
General Land Office

Date Executed _____

BHP Billiton Petroleum Properties (N.A.), LP,
formerly known as Petrohawk Properties, LP,
By: BHP Billiton Petroleum Properties (GP), LLC,
its General Partner

By: _____
Stephen L. Mahanay, Attorney-in-Fact

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on Dec 16, 2014, by Stephen L. Mahanay, Attorney-in-Fact of BHP Billiton Petroleum Properties (N.A.), LP formerly known as Petrohawk Properties, LP, by BHP Billiton Petroleum Properties (GP), LLC, its General Partner a Texas limited liability company on behalf of said limited partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

_____
Notary Public in and for the State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 9th day of December, 2014, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 22nd day of December, 2014.

_____
Secretary of the School Land Board

Addendum "A"

To that certain Pooling Agreement for the HORSESHOE SPRINGS STATE 113-10 UNIT

The parties hereby agree that should a conflict exist between this Addendum and the body of the agreement that this Addendum shall prevail.

The pooled unit shall consist of all of the lands herein described in the attached Exhibit "B" and depicted in the attached Exhibit "C", provided however that, on or before the expiration of the Extended Period, as defined in the Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit, (the "**Trigger Date**"), if Lessee has commenced actual drilling operations on one (1) Unit Well, then a "**Continuous Drilling Program**" shall commence, whereby, Lessee has the option to commence actual drilling operations on additional Unit Wells in accordance with the deadlines below:

- Two Years from the expiration of the Extended Period – 2nd Unit Well
- Three Years from the expiration of the Extended Period – 3rd Unit Well
- Four Years from the expiration of the Extended Period – 4th Unit Well

At such time as Lessee has drilled and completed four (4) Unit Wells, in accordance with the deadlines above, the Continuous Drilling Program shall cease and the parties hereby agree that the pooled unit shall remain in the original, unaltered size and shape described in Exhibit "B" and depicted in Exhibit "C", in accordance with paragraph 9 of the Agreement.

Lessee's failure to timely comply with the deadlines above shall result in the formation of a "**Contracted Pooled Unit**" in accordance with the following:

# of Unit Wells	Corresponding size & shape of the resulting Contracted Pooled Unit
1 Unit Well	240 Acres, more or less, comprised of the stand-up 240 acre, more or less, quarter of the original pooled unit containing the first Unit Well.
2 Unit Wells	480 Acres, more or less, comprised of a) the stand-up 480 acre, more or less, half of the original pooled unit containing the first Unit Well, or b) the two 240 acre, more or less, stand-up quarters of the original pooled unit containing each of the 2 Unit Wells, if said wells are not in the same half of the original pooled unit.
3 Unit Wells	720 Acres, more or less, comprised of a) the stand-up 480 acre, more or less, half of the original pooled unit containing the first Unit Well and the adjacent stand-up 240 acre, more or less, quarter of the original pooled unit, or b) the stand-up 480 acre, more or less, half of the original pooled unit containing the first unit well and the non-adjacent stand-up 240 acre, more or less, quarter of the original pooled unit, if said non-adjacent quarter contains a wellbore, or c) the three 240 acre, more or less, stand-up quarters of the original pooled unit containing each of the 3 Unit Wells.

It is the intent of the parties that each wellbore drilled within the original pooled unit shall earn 240 acres, more or less, or one quarter of the original pooled unit acreage as described on Exhibit "B" and depicted on Exhibit "C".

End of Addendum "A"

Exhibit "A"

Leases In Unit

State Lease #: MF-113596A

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 510, Doc # 67191, Filed: 08/18/2011, Culberson County, Texas

Royalty: 25%

State Lease #: MF-113601A

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 560, Doc # 67196, Filed: 08/18/2011 Culberson County, Texas

Royalty: 25%

State Lease #: MF-113061A

Lessor: State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92

Lessee: Clay Johnson

Date: 07/20/2011

Recording Info: Book 106, Page 466, Doc # 67163, Filed: 08/04/2011, Culberson County, Texas

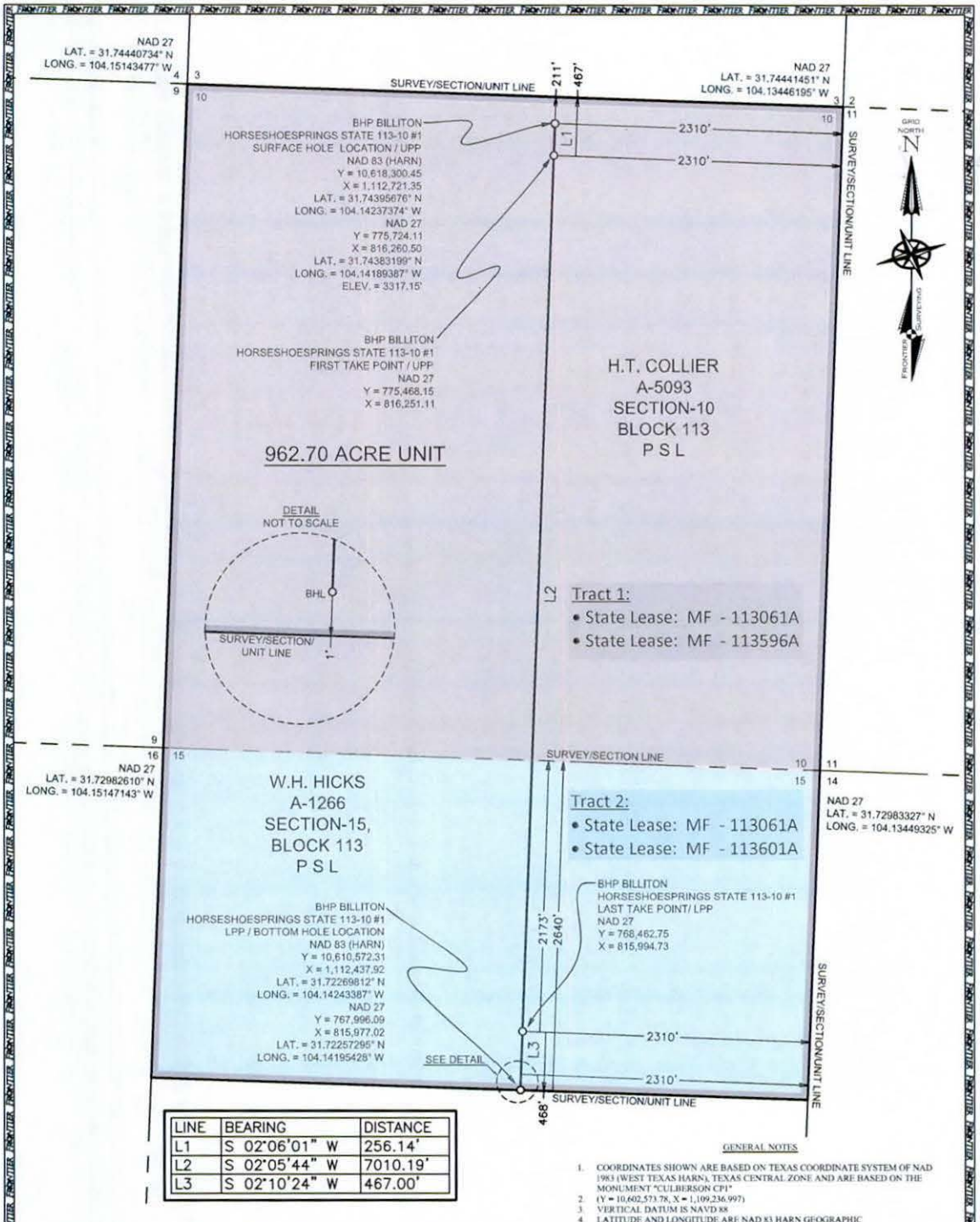
Royalty: 25%

Exhibit "B"

Description of Lands included in the Pooling Agreement

Tract 1:
All of Section 10, BLK 113, Public School Land Survey, Culberson County Texas.

Tract 2:
The North Half of Section 15, BLK 113, Public School Land Survey, Culberson County, Texas.



LINE	BEARING	DISTANCE
L1	S 02°06'01" W	256.14'
L2	S 02°05'44" W	7010.19'
L3	S 02°10'24" W	467.00'

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CULBERSON CP1" (Y = 10,602,571.79, X = 1,109,236.997)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT
6. COMBINED SCALE FACTOR = 0.999802604
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 27 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 08/16/13.THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

PLAT OF:

A WELL LOCATION FOR:

BHP BILLITON Pet (TXLA OP)

HORSESHOESPRINGS STATE 113-10 #1
FORD, WEST (WOLFCAMP)

SITUATED IN SECTION 10, BLOCK 113, THE H.T. COLLIER SURVEY, A-5093, AND SECTION 15, BLOCK 113, THE W.H. HICKS SURVEY, A-1266, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 14.6 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 08/16/13	File Name: 1308031.DWG		
Scale: 1" = 1000'	Surveyed by: AD/MB		
Drawn by: SZC/MC/DP	Checked by: MC		

FRONTIER
SURVEYING COMPANY
SERVICES: LAND SURVEYING/LOCATIONS/PIPELINES/MAPPING/GPS/GIS
710 BUFFALO STREET, SUITE 700, CORPUS CHRISTI, TEXAS, 78401
PHONE: (361) 881 - 8044 FAX: (361) 881 - 8340
www.frontiersurveying.com

PLOT DATE:09-25-13 9:51 AM

JOB #: 1308031

(19)

File No. M-113061
Pooling Agreement Packet #7222
Horseshoe Spring State 113-10 #1H Unit
Date Filed: 12/22/14
Jerry E. Patterson, Commissioner
By

Doc# 00000067163

General Land Office
Relinquishment Act Lease Form
Revised, September 1997

OIL AND GAS LEASE

THIS AGREEMENT is made and entered into this 20th day of July, 2011, between the State of Texas, acting by and through its agent, **Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92** of 10 Rio Bonito Circle, Roswell, New Mexico 88201 said agent

(Give Permanent Address)

herein referred to as the owner of the soil (whether one or more), and **CLAY JOHNSON** of 203 W. Wall, Suite 202 Midland, Texas 79701

(Give Permanent Address)

hereinafter called Lessee.

1. GRANTING CLAUSE For and in consideration of the amounts stated below and of the covenants and agreements to be paid, kept and performed by Lessee under this lease, the State of Texas acting by and through the owner of the soil, hereby grants, leases and lets unto Lessee, for the sole and only purpose of prospecting and drilling for and producing oil and gas, laying pipe lines, building tanks, storing oil and building power Stations, telephone lines and other Structures thereon, to produce, save, take care of, treat and transport said products of the lease, the following lands situated in Culberson County, State of Texas, to-wit:

Block 113, Public School Land Survey

Section 10: All
Section 14: W/2
Section 15: All
Section 16: All
Section 21: All
Section 22: All

Containing 3,520.00 acres, more or less. The bonus consideration paid for this lease is as follows:

To the State of Texas: Five Hundred Seventy-two Thousand Eight Hundred Eighty and No/100---------- Dollars ($ 572,880.00)

To the owner of the soil: Five Hundred Seventy-two Thousand Eight Hundred Eighty and No/100---------- Dollars ($ 572,880.00)

Total bonus consideration: One Million One Hundred Forty-five Thousand Seven Hundred Sixty and No/100---- Dollars ($ 1,145,760.00)

The total bonus consideration paid represents a bonus of One Thousand Three Hundred Two and No/100---------- Dollars ($ 1,302.00) per acre, on 880.00 net acres.

2. TERM. Subject to the other provisions in this lease, this lease shall be for a term of Five (5) years from this date (herein called primary term") and as long thereafter as oil and gas, or either of them, is produced in paying quantities from said land. As used in this lease, the term "produced in paying quantities" means that the receipts from the sale or other authorized commercial use of the substance(s) covered exceed out of pocket operational expenses for the six months last past.

3. DELAY RENTALS. If no well is commenced on the leased premises on or before one (1) year from this date, this lease shall terminate, unless on or before such anniversary date Lessee shall pay or tender to the owner of the soil or to his credit in the Pay direct to Lessor at the above address Bank, at _____, or its successors (which shall continue as the depository regardless of changes in the ownership of said land), the amount specified below; in addition, Lessee shall pay or tender to the COMMISSIONER OF THE GENERAL LAND OFFICE OF THE STATE OF TEXAS, AT AUSTIN, TEXAS, a like sum on or before said date. Payments under this paragraph shall operate as a rental and shall cover the privilege of deferring the commencement of a well for one (1) year from said date. Payments under this paragraph shall be in the following amounts:

To the owner of the soil: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

To the State of Texas: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

Total Rental: see Paragraphs 2 and 4 of the attached Exhibit "A" for amended Delay Rental Provision Dollars ($_____)

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In a like manner and upon like payments or tenders annually, the commencement of a well may be further deferred for successive periods of one (1) year each during the primary term. All payments or tenders of rental to the owner of the soil may be made by check or sight draft of Lessee, or any assignee of this lease, and may be delivered on or before the rental paying date. If the bank designated in this paragraph (or its successor bank) should cease to exist, suspend business, liquidate, fail or be succeeded by another bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payments or tenders of rental until thirty (30) days after the owner of the soil shall deliver to Lessee a proper recordable instrument naming another bank as agent to receive such payments or tenders.

4. PRODUCTION ROYALTIES Upon production of oil and/or gas, Lessee agrees to pay or cause to be paid one-half (1/2) of the royalty provided for in this lease to the Commissioner of the General Land Office of the State of Texas, at Austin, Texas, and one-half (1/2) of such royalty to the owner of the soil:

(A) OIL. Royalty payable on oil, which is defined as including all hydrocarbons produced in a liquid form at the mouth of the well and also as all condensate, distillate, and other liquid hydrocarbons recovered from oil or gas run through a separator or other equipment, as hereinafter provided, shall be **1/4th** part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be determined by 1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity in the general area where produced and when run, or 2) the highest market price thereof offered or paid in the general area where produced and when run, or 3) the gross proceeds of the sale thereof, whichever is the greater. Lessee agrees that before any gas produced from the leased premises is sold, used or processed in a plant, it will be run free of cost to the royalty owners through an adequate oil and gas separator of conventional type, or other equipment at least as efficient, so that all liquid hydrocarbons recoverable from the gas by such means will be recovered. The requirement that such gas be run through a separator or other equipment may be waived in writing by the royalty owners upon such terms and conditions as they prescribe.

(B) NON PROCESSED GAS. Royalty on any gas (including flared gas), which is defined as all hydrocarbons and gaseous substances not defined as oil in subparagraph (A) above, produced from any well on said land (except as provided herein with respect to gas processed in a plant for the extraction of gasoline, liquid hydrocarbons or other products) shall be **1/4th** part of the gross production or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such value to be based on the highest market price paid or offered for gas of comparable quality in the general area where produced and when run, or the gross price paid or offered to the producer, whichever is the greater; provided that the maximum pressure base in measuring the gas under this lease shall not at any time exceed 14.65 pounds per square inch absolute, and the standard base temperature shall be sixty (60) degrees Fahrenheit, correction to be made for pressure according to Boyle's Law, and for specific gravity according to tests made by the Balance Method or by the most approved method of testing being used by the industry at the time of testing.

(C) PROCESSED GAS. Royalty on any gas processed in a gasoline plant or other plant for the recovery of gasoline or other liquid hydrocarbons shall be **1/4th** part of the residue gas and the liquid hydrocarbons extracted or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office. All royalties due herein shall be based on one hundred percent (100%) of the total plant production of residue gas attributable to gas produced from this lease, and on fifty percent (50%), or that percent accruing to Lessee, whichever is the greater, of the total plant production of liquid hydrocarbons attributable to the gas produced from this lease; provided that if liquid hydrocarbons are recovered from gas processed in a plant in which Lessee (or its parent, subsidiary or affiliate) owns an interest, then the percentage applicable to liquid hydrocarbons shall be fifty percent (50%) or the highest percent accruing to a third party processing gas through such plant under a processing agreement negotiated at arm's length (or if there is no such third party, the highest percent then being specified in processing agreements or contracts in the industry), whichever is the greater. The respective royalties on residue gas and on liquid hydrocarbons shall be determined by 1) the highest market price paid or offered for any gas (or liquid hydrocarbons) of comparable quality in the general area, or 2) the gross price paid or offered for such residue gas (or the weighted average gross selling price for the respective grades of liquid hydrocarbons), whichever is the greater. In no event, however, shall the royalties payable under this paragraph be less than the royalties which would have been due had the gas not been processed.

(D) OTHER PRODUCTS. Royalty on carbon black, sulphur or any other products produced or manufactured from gas (excepting liquid hydrocarbons) whether said gas be casinghead, "dry," or any other gas, by fractionating, burning or any other processing shall be **1/4th** part of the gross production of such products, or the market value thereof, at the option of the owner of the soil or the Commissioner of the General Land Office, such market value to be determined as follows: 1) on the basis of the highest market price of each product for the same month in which such product is produced, or 2) on the basis of the average gross sale price of each product for the same month in which such products are produced; whichever is the greater.

5. MINIMUM ROYALTY. During any year after the expiration of the primary term of this lease, if this lease is maintained by production, the royalties paid under this lease in no event shall be less than an amount equal to the total annual delay rental herein provided; otherwise, there shall be due and payable on or before the last day of the month succeeding the anniversary date of this lease a sum equal to the total annual rental less the amount of royalties paid during the preceding year. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre.

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6. ROYALTY IN KIND. Notwithstanding any other provision in this lease, at any time or from time to time, the owner of the soil or the Commissioner of the General Land Office may, at the option of either, upon not less than sixty (60) days notice to the holder of the lease, require that the payment of any royalties accruing to such royalty owner under this lease be made in kind. The owner of the soil's or the Commissioner of the General Land Office's right to take its royalty in kind shall not diminish or negate the owner of the soil's or the Commissioner of the General Land Office's rights or Lessee's obligations, whether express or implied, under this lease.

7. NO DEDUCTIONS. Lessee agrees that all royalties accruing under this lease (including those paid in kind) shall be without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting, and otherwise making the oil, gas and other products hereunder ready for sale or use. Lessee agrees to compute and pay royalties on the gross value received, including any reimbursements for severance taxes and production related costs.

8. PLANT FUEL AND RECYCLED GAS. No royalty shall be payable on any gas as may represent this lease's proportionate share of any fuel used to process gas produced hereunder in any processing plant. Notwithstanding any other provision of this lease, and subject to the written consent of the owner of the soil and the Commissioner of the General Land Office, Lessee may recycle gas for gas lift purposes on the leased premises or for injection into any oil or gas producing formation underlying the leased premises after the liquid hydrocarbons contained in the gas have been removed; no royalties shall be payable on the recycled gas until it is produced and sold or used by Lessee in a manner which entitles the royalty owners to a royalty under this lease.

9. ROYALTY PAYMENTS AND REPORTS. All royalties not taken in kind shall be paid to the Commissioner of the General Land Office at Austin, Texas, in the following manner:

Payment of royalty on production of oil and gas shall be as provided in the rules set forth in the Texas Register. Rules currently provide that royalty on oil is due and must be received in the General Land Office on or before the 5th day of the second month succeeding the month of production, and royalty on gas is due and must be received in the General Land Office on or before the 15th day of the second month succeeding the month of production, accompanied by the affidavit of the owner, manager or other authorized agent, completed in the form and manner prescribed by the General Land Office and showing the gross amount and disposition of all oil and gas produced and the market value of the oil and gas, together with a copy of all documents, records or reports confirming the gross production, disposition and market value including gas meter readings, pipeline receipts, gas line receipts and other checks or memoranda of amount produced and put into pipelines, tanks, or pools and gas lines or gas storage, and any other reports or records which the General Land Office may require to verify the gross production, disposition and market value. In all cases the authority of a manager or agent to act for the Lessee herein must be filed in the General Land Office. Each royalty payment shall be accompanied by a check stub, schedule, summary or other remittance advice showing by the assigned General Land Office lease number the amount of royalty being paid on each lease. If Lessee pays his royalty on or before thirty (30) days after the royalty payment was due, then Lessee owes a penalty of 5% on the royalty or $25.00, whichever is greater. A royalty payment which is over thirty (30) days late shall accrue a penalty of l0% of the royalty due or $25.00 whichever is greater. In addition to a penalty, royalties shall accrue interest at a rate of 12% per year, such interest will begin accruing when the royalty is sixty (60) days overdue. Affidavits and supporting documents which are not filed when due shall incur a penalty in an amount set by the General Land Office administrative rule which is effective on the date when the affidavits or supporting documents were due. The Lessee shall bear all responsibility for paying or causing royalties to be paid as prescribed by the due date provided herein. Payment of the delinquency penalty shall in no way operate to prohibit the State's right of forfeiture as provided by law nor act to postpone the date on which royalties were originally due. The above penalty provisions shall not apply in cases of title dispute as to the State's portion of the royalty or to that portion of the royalty in dispute as to fair market value.

10. (A) RESERVES, CONTRACTS AND OTHER RECORDS. Lessee shall annually furnish the Commissioner of the General Land Office with its best possible estimate of oil and gas reserves underlying this lease or allocable to this lease and shall furnish said Commissioner with copies of all contracts under which gas is sold or processed and all subsequent agreements and amendments to such contracts within thirty (30) days after entering into or making such contracts, agreements or amendments. Such contracts and agreements when received by the General Land Office shall be held in confidence by the General Land Office unless otherwise authorized by Lessee. All other contracts and records pertaining to the production, transportation, sale and marketing of the oil and gas produced on said premises, including the books and accounts, receipts and discharges of all wells, tanks, pools, meters, and pipelines shall at all times be subject to inspection and examination by the Commissioner of the General Land Office, the Attorney General, the Governor, or the representative of any of them.

(B) PERMITS, DRILLING RECORDS. Written notice of all operations on this lease shall be submitted to the Commissioner of the General Land Office by Lessee or operator five (5) days before spud date, workover, re-entry, temporary abandonment or plug and abandonment of any well or wells. Such written notice to the General Land Office shall include copies of Railroad Commission forms for application to drill. Copies of well tests, completion reports and plugging reports shall be supplied to the General Land Office at the time they are filed with the Texas Railroad Commission. All applications, permits, reports or other filings that reference this lease or any specific well on the leased premises and that are submitted to the Texas Railroad Commission or any other governmental agency shall include the word "State" in the title. Additionally, in accordance with Railroad Commission rules, any signage on the leased premises for the purpose of identifying wells, tank batteries or other associated improvements to the land must also include the word "State." Lessee shall supply the General Land Office with any records, memoranda, accounts, reports, cuttings and cores, or other information relative to the operation of the above described premises, which may be requested by the General Land Office, in addition to those herein expressly provided for. Lessee shall have an electrical and/or radioactivity survey made on the bore-hole section, from the base of the surface casing to the total depth of well, of all wells drilled on the above described premises and shall transmit a true copy of the log of each survey on each well to the General Land Office within fifteen (15) days after the making of said survey.

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(C) PENALTIES. Lessee shall incur a penalty whenever reports, documents or other materials are not filed in the General Land Office when due. The penalty for late filing shall be set by the General Land Office administrative rule which is effective on the date when the materials were due in the General Land Office.

11. DRY HOLE/CESSATION OF PRODUCTION DURING PRIMARY TERM. If, during the primary term hereof and prior to discovery and production of oil or gas on said land, Lessee should drill a dry hole or holes thereon, or if during the primary term hereof and after the discovery and actual production of oil or gas from the leased premises such production thereof should cease from any cause, this lease shall not terminate if on or before the expiration of sixty (60) days from date of completion of said dry hole or cessation of production Lessee commences additional drilling or reworking operations thereon, or pays or tenders the next annual delay rental in the same manner as provided in this lease. If, during the last year of the primary term or within sixty (60) days prior thereto, a dry hole be completed and abandoned, or the production of oil or gas should cease for any cause, Lessee's rights shall remain in full force and effect without further operations until the expiration of the primary term; and if Lessee has not resumed production in paying quantities at the expiration of the primary term, Lessee may maintain this lease by conducting additional drilling or reworking operations pursuant to Paragraph 13, using the expiration of the primary term as the date of cessation of production under Paragraph 13. Should the first well or any subsequent well drilled on the above described land be completed as a shut-in oil or gas well within the primary term hereof, Lessee may resume payment of the annual rental in the same manner as provided herein on or before the rental paying date following the expiration of sixty (60) days from the date of completion of such shut-in oil or gas well and upon the failure to make such payment, this lease shall ipso facto terminate. If at the expiration of the primary term or any time thereafter a shut-in oil or gas well is located on the leased premises, payments may be made in accordance with the shut-in provisions hereof.

12. DRILLING AND REWORKING AT EXPIRATION OF PRIMARY TERM. If, at the expiration of the primary term, neither oil nor gas is being produced on said land, but Lessee is then engaged in drilling or reworking operations thereon, this lease shall remain in force so long as operations on said well or for drilling or reworking of any additional well are prosecuted in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days during any one such operation, and if they result in the production of oil and/or gas, so long thereafter as oil and/or gas is produced in paying quantities from said land, or payment of shut-in oil or gas well royalties or compensatory royalties is made as provided in this lease.

13. CESSATION, DRILLING, AND REWORKING. If, after the expiration of the primary term, production of oil or gas from the leased premises, after once obtained, should cease from any cause, this lease shall not terminate if Lessee commences additional drilling or reworking operations within sixty (60) days after such cessation, and this lease shall remain in full force and effect for so long as such operations continue in good faith and in workmanlike manner without interruptions totaling more than sixty (60) days. If such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect for so long as oil or gas is produced from the leased premises in paying quantities or payment of shut-in oil or gas well royalties or payment of compensatory royalties is made as provided herein or as provided by law. If the drilling or reworking operations result in the completion of a well as a dry hole, the lease will not terminate if the Lessee commences additional drilling or reworking operations within sixty (60) days after the completion of the well as a dry hole, and this lease shall remain in effect so long as Lessee continues drilling or reworking operations in good faith and in a workmanlike manner without interruptions totaling more than sixty (60) days. Lessee shall give written notice to the General Land Office within thirty (30) days of any cessation of production.

14. SHUT-IN ROYALTIES. For purposes of this paragraph, "well" means any well that has been assigned a well number by the state agency having jurisdiction over the production of oil and gas. If, at any time after the expiration of the primary term of a lease that, until being shut in, was being maintained in force and effect, a well capable of producing oil or gas in paying quantities is located on the leased premises, but oil or gas is not being produced for lack of suitable production facilities or lack of a suitable market, then Lessee may pay as a shut-in oil or gas royalty an amount equal to double the annual rental provided in the lease, but not less than $1,200 a year for each well capable of producing oil or gas in paying quantities. If Paragraph 3 of this lease does not specify a delay rental amount, then for the purposes of this paragraph, the delay rental amount shall be one dollar ($1.00) per acre. To be effective, each initial shut-in oil or gas royalty must be paid on or before: (1) the expiration of the primary term, (2) 60 days after the Lessee ceases to produce oil or gas from the leased premises, or (3) 60 days after Lessee completes a drilling or reworking operation in accordance with the lease provisions; whichever date is latest. Such payment shall be made one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil. If the shut-in oil or gas royalty is paid, the lease shall be considered to be a producing lease and the payment shall extend the term of the lease for a period of one year from the end of the primary term, or from the first day of the month following the month in which production ceased, and, after that, if no suitable production facilities or suitable market for the oil or gas exists, Lessee may extend the lease for four more successive periods of one (1) year by paying the same amount each year on or before the expiration of each shut-in year.

15. COMPENSATORY ROYALTIES. If, during the period the lease is kept in effect by payment of the shut-in oil or gas royalty, oil or gas is sold and delivered in paying quantities from a well located within one thousand (1,000) feet of the leased premises and completed in the same producing reservoir, or in any case in which drainage is occurring, the right to continue to maintain the lease by paying the shut-in oil or gas royalty shall cease, but the lease shall remain effective for the remainder of the year for which the royalty has been paid. The Lessee may maintain the lease for four more successive years by Lessee paying compensatory royalty at the royalty rate provided in the lease of the market value of production from the well causing the drainage or which is completed in the same producing reservoir and within one thousand (1,000) feet of the leased premises. The compensatory royalty is to be paid monthly, one-half (1/2) to the Commissioner of the General Land Office and one-half (1/2) to the owner of the soil, beginning on or before the last day of the month following the month in which the oil or gas is produced from the well causing the drainage or that is completed in the same producing reservoir and located within one thousand (1,000) feet of the leased premises. If the compensatory royalty paid in any 12-month period is in an amount less than the annual shut-in oil or gas royalty, Lessee shall pay an amount equal to the difference within thirty (30) days from the end of the 12-month period. Compensatory royalty payments

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which are not timely paid will accrue penalty and interest in accordance with Paragraph 9 of this lease. None of these provisions will relieve Lessee of the obligation of reasonable development nor the obligation to drill offset wells as provided in Texas Natural Resources Code 52.173; however, at the determination of the Commissioner, and with the Commissioner's written approval, the payment of compensatory royalties can satisfy the obligation to drill offset wells.

16. RETAINED ACREAGE. Notwithstanding any provision of this lease to the contrary, after a well producing or capable of producing oil or gas has been completed on the leased premises, Lessee shall exercise the diligence of a reasonably prudent operator in drilling such additional well or wells as may be reasonably necessary for the proper development of the leased premises and in marketing the production thereon.

(A) VERTICAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall then terminate as to all of the leased premises, EXCEPT (1) 40 acres surrounding each oil well capable of producing in paying quantities and 320 acres surrounding each gas well capable of producing in paying quantities (including a shut-in oil or gas well as provided in Paragraph 14 hereof), or a well upon which Lessee is then engaged in continuous drilling or reworking operations, or (2) the number of acres included in a producing pooled unit pursuant to Texas Natural Resources Code 52.151-52.153, or (3) such greater or lesser number of acres as may then be allocated for production purposes to a proration unit for each such producing well under the rules and regulations of the Railroad Commission of Texas, or any successor agency. or other governmental authority having jurisdiction. If at any time after the effective date of the partial termination provisions hereof, the applicable field rules are changed or the well or wells located thereon are reclassified so that less acreage is thereafter allocated to said well or wells for production purposes, this lease shall thereupon terminate as to all acreage not thereafter allocated to said well or wells for production purposes. Notwithstanding the termination of this lease as to a portion of the lands covered hereby, Lessee shall nevertheless continue to have the right of ingress to and egress from the lands still subject to this lease for all purposes described in Paragraph 1 hereof, together with easements and right-of-ways for existing roads, existing pipelines and other existing facilities on, over and across all the lands described in Paragraph 1 hereof ("the retained lands"), for access to and from the retained lands and for the gathering or transportation of oil, gas and other minerals produced from the retained lands.

(B) HORIZONTAL. In the event this lease is in force and effect two (2) years after the expiration date of the primary or extended term it shall further terminate as to all depths below 100 feet below the total depth drilled (hereinafter "deeper depths") in each well located on acreage retained in Paragraph 16(A) above, unless on or before two (2) years after the primary or extended term Lessee pays an amount equal to one-half (1/2) of the bonus originally paid as consideration for this lease (as specified on page 1 hereof). If such amount is paid, this lease shall be in force and effect as to such deeper depths, and said termination shall be delayed for an additional period of two (2) years and so long thereafter as oil or gas is produced in paying quantities from such deeper depths covered by this lease.

(C) IDENTIFICATION AND FILING. The surface acreage retained hereunder as to each well shall, as nearly as practical, be in the form of a square with the well located in the center thereof, or such other shape as may be approved by the Commissioner of the General Land Office. Within thirty (30) days after partial termination of this lease as provided herein, Lessee shall execute and record a release or releases containing a satisfactory legal description of the acreage and/or depths not retained hereunder. The recorded release, or a certified copy of same, shall be filed in the General Land Office, accompanied by the filing fee prescribed by the General Land Office rules in effect on the date the release is filed. If Lessee fails or refuses to execute and record such release or releases within ninety (90) days after being requested to do so by the General Land Office, then the Commissioner at his sole discretion may designate by written instrument the acreage and/or depths to be released hereunder and record such instrument at Lessee's expense in the county or counties where the lease is located and in the official records of the General Land Office and such designation shall be binding upon Lessee for all purposes.

17. OFFSET WELLS. Neither the bonus, delay rentals, nor royalties paid, or to be paid, under this lease shall relieve Lessee of his obligation to protect the oil and gas under the above-described land from being drained. Lessee, sublessee, receiver or other agent in control of the leased premises shall drill as many wells as the facts may justify and shall use appropriate means and drill to a depth necessary to prevent undue drainage of oil and gas from the leased premises. In addition, if oil and/or gas should be produced in commercial quantities within 1,000 feet of the leased premises, or in any case where the leased premises is being drained by production of oil or gas, the Lessee, sublessee, receiver or other agent in control of the leased premises shall in good faith begin the drilling of a well or wells upon the leased premises within 100 days after the draining well or wells or the well or wells completed within 1,000 feet of the leased premises start producing in commercial quantities and shall prosecute such drilling with diligence. Failure to satisfy the statutory offset obligation may subject this lease and the owner of the soil's agency rights to forfeiture. Only upon the determination of the Commissioner of the General Land Office and with his written approval may the payment of compensatory royalty under applicable statutory parameters satisfy the obligation to drill an offset well or wells required under this paragraph.

18. FORCE MAJEURE. If, after a good faith effort, Lessee is prevented from complying with any express or implied covenant of this lease, from conducting drilling operations on the leased premises, or from producing oil or gas from the leased premises by reason of war, rebellion, riots, strikes, acts of God, or any valid order, rule or regulation of government authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply with such covenants; additionally, this lease shall be extended while Lessee is prevented, by any such cause, from conducting drilling and reworking operations or from producing oil or gas from the leased premises. However, nothing in this paragraph shall suspend the payment of delay rentals in order to maintain this lease in effect during the primary term in the absence of such drilling or reworking operations or production of oil or gas.

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19. WARRANTY CLAUSE. The owner of the soil warrants and agrees to defend title to the leased premises. If the owner of the soil defaults in payments owed on the leased premises, then Lessee may redeem the rights of the owner of the soil in the leased premises by paying any mortgage, taxes or other liens on the leased premises. If Lessee makes payments on behalf of the owner of the soil under this paragraph, Lessee may recover the cost of these payments from the rental and royalties due the owner of the soil.

20. (A) PROPORTIONATE REDUCTION CLAUSE. If the owner of the soil owns less than the entire undivided surface estate in the above described land, whether or not Lessee's interest is specified herein, then the royalties and rental herein provided to be paid to the owner of the soil shall be paid to him in the proportion which his interest bears to the entire undivided surface estate and the royalties and rental herein provided to be paid to the Commissioner of the General Land Office of the State of Texas shall be likewise proportionately reduced. However, before Lessee adjusts the royalty or rental due to the Commissioner of the General Land Office, Lessee or his authorized representative must submit to the Commissioner of the General Land Office a written statement which explains the discrepancy between the interest purportedly leased under this lease and the actual interest owned by the owner of the soil. The Commissioner of the General Land Office shall be paid the value of the whole production allocable to any undivided interest not covered by a lease, less the proportionate development and production cost allocable to such undivided interest. However, in no event shall the Commissioner of the General Land Office receive as a royalty on the gross production allocable to the undivided interest not leased an amount less than the value of one-sixteenth (1/16) of such gross production.

(B) REDUCTION OF PAYMENTS. If, during the primary term, a portion of the land covered by this lease is included within the boundaries of a pooled unit that has been approved by the School Land Board and the owner of the soil in accordance with Natural Resources Code Sections 52.151-52.154, or if at any time after the expiration of the primary term or the extended term, this lease covers a lesser number of acres than the total amount described herein, payments that are made on a per acre basis hereunder shall be reduced according to the number of acres pooled, released, surrendered, or otherwise severed, so that payments determined on a per acre basis under the terms of this lease during the primary term shall be calculated based upon the number of acres outside the boundaries of a pooled unit, or, if after the expiration of the primary term, the number of acres actually retained and covered by this lease.

21. USE OF WATER. Lessee shall have the right to use water produced on said land necessary for operations under this lease except water from wells or tanks of the owner of the soil; provided, however, Lessee shall not use potable water or water suitable for livestock or irrigation purposes for watertlood operations without the prior consent of the owner of the soil.

22. AUTHORIZED DAMAGES. Lessee shall pay the owner of the soil for damages caused by its operations to all personal property, improvements, livestock and crops on said land.

23. PIPELINE DEPTH. When requested by the owner of the soil, Lessee shall bury its pipelines below plow depth.

24. WELL LOCATION LIMIT. No well shall be drilled nearer than two hundred (200) feet to any house or barn now on said premises without the written consent of the owner of the soil.

25. POLLUTION. In developing this area, Lessee shall use the highest degree of care and all proper safeguards to prevent pollution. Without limiting the foregoing, pollution of coastal wetlands, natural waterways, rivers and impounded water shall be prevented by the use of containment facilities sufficient to prevent spillage, seepage or ground water contamination. In the event of pollution, Lessee shall use all means at its disposal to recapture all escaped hydrocarbons or other pollutant and shall be responsible for all damage to public and private properties. Lessee shall build and maintain fences around its slush, sump, and drainage pits and tank batteries so as to protect livestock against loss, damage or injury; and upon completion or abandonment of any well or wells, Lessee shall fill and level all slush pits and cellars and completely clean up the drilling site of all rubbish thereon. Lessee shall, while conducting operations on the leased premises, keep said premises free of all rubbish, cans, bottles, paper cups or garbage, and upon completion of operations shall restore the surface of the land to as near its original condition and contours as is practicable. Tanks and equipment will be kept painted and presentable.

26. REMOVAL OF EQUIPMENT. Subject to limitations in this paragraph, Lessee shall have the right to remove machinery and fixtures placed by Lessee on the leased premises, including the right to draw and remove casing, within one hundred twenty (120) days after the expiration or the termination of this lease unless the owner of the soil grants Lessee an extension of this 120-day period. However, Lessee may not remove casing from any well capable of producing oil and gas in paying quantities. Additionally, Lessee may not draw and remove casing until after thirty (30) days written notice to the Commissioner of the General Land Office and to the owner of the soil. The owner of the soil shall become the owner of any machinery, fixtures, or casing which are not timely removed by Lessee under the terms of this paragraph.

27. (A) ASSIGNMENTS. Under the conditions contained in this paragraph and Paragraph 29 of this lease, the rights and estates of either party to this lease may be assigned, in whole or in part, and the provisions of this lease shall extend to and be binding upon their heirs, devisees, legal representatives, successors and assigns. However, a change or division in ownership of the land, rentals, or royalties will not enlarge the obligations of Lessee, diminish the rights, privileges and estates of Lessee, impair the effectiveness of any payment made by Lessee or impair the effectiveness of any act performed by Lessee. And no change or division in ownership of the land, rentals, or royalties shall bind Lessee for any purpose until thirty (30) days after the owner of the soil (or his heirs, devisees, legal representatives or assigns) furnishes the Lessee with satisfactory written evidence of the change in ownership, including the original recorded muniments of title (or a certified copy of such original) when the ownership changed because of a conveyance. A total or partial assignment of this lease shall, to the extent of the interest assigned, relieve and discharge Lessee of all subsequent obligations under this lease. If this lease is assigned in its entirety as to only part of the acreage, the right and option to pay rentals shall be apportioned as between the several owners ratably, according to the area of each, and failure by one or more of them to

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pay his share of the rental shall not affect this lease on the part of the land upon which pro rata rentals are timely paid or tendered; however, if the assignor or assignee does not file a certified copy of such assignment in the General Land Office before the next rental paying date, the entire lease shall terminate for failure to pay the entire rental due under Paragraph 3. Every assignee shall succeed to all rights and be subject to all obligations, liabilities, and penalties owed to the State by the original lessee or any prior assignee of the lease, including any liabilities to the State for unpaid royalties.

(B) ASSIGNMENT LIMITATION. Notwithstanding any provision in Paragraph 27(a), if the owner of the soil acquires this lease in whole or in part by assignment without the prior written approval of the Commissioner of the General Land Office, this lease is void as of the time of assignment and the agency power of the owner may be forfeited by the Commissioner. An assignment will be treated as if it were made to the owner of the soil if the assignee is:

(1) a nominee of the owner of the soil;
(2) a corporation or subsidiary in which the owner of the soil is a principal stockholder or is an employee of such a corporation or subsidiary;
(3) a partnership in which the owner of the soil is a partner or is an employee of such a partnership;
(4) a principal stockholder or employee of the corporation which is the owner of the soil;
(5) a partner or employee in a partnership which is the owner of the soil;
(6) a fiduciary for the owner of the soil; including but not limited to a guardian, trustee, executor, administrator, receiver, or conservator for the owner of the soil; or
(7) a family member of the owner of the soil or related to the owner of the soil by marriage, blood, or adoption.

28. RELEASES. Under the conditions contained in this paragraph and Paragraph 29, Lessee may at any time execute and deliver to the owner of the soil and place of record a release or releases covering any portion or portions of the leased premises, and thereby surrender this lease as to such portion or portions, and be relieved of all subsequent obligations as to acreage surrendered. If any part of this lease is properly surrendered, the delay rental due under this lease shall be reduced by the proportion that the surrendered acreage bears to the acreage which was covered by this lease immediately prior to such surrender; however, such release will not relieve Lessee of any liabilities which may have accrued under this lease prior to the surrender of such acreage.

29. FILING OF ASSIGNMENTS AND RELEASES. If all or any part of this lease is assigned or released, such assignment or release must be recorded in the county where the land is situated, and the recorded instrument, or a copy of the recorded instrument certified by the County Clerk of the county in which the instrument is recorded, must be filed in the General Land Office within 90 days of the last execution date accompanied by the prescribed filing fee. If any such assignment is not so filed, the rights acquired under this lease shall be subject to forfeiture at the option of the Commissioner of the General Land Office.

30. DISCLOSURE CLAUSE. All provisions pertaining to the lease of the above-described land have been included in this instrument, including the statement of the true consideration to be paid for the execution of this lease and the rights and duties of the parties. Any collateral agreements concerning the development of oil and gas from the leased premises which are not contained in this lease render this lease invalid.

31. FIDUCIARY DUTY. The owner of the soil owes the State a fiduciary duty and must fully disclose any facts affecting the State's interest in the leased premises. When the interests of the owner of the soil conflict with those of the State, the owner of the soil is obligated to put the State's interests before his personal interests.

32. FORFEITURE. If Lessee shall fail or refuse to make the payment of any sum within thirty days after it becomes due, or if Lessee or an authorized agent should knowingly make any false return or false report concerning production or drilling, or if Lessee shall fail or refuse to drill any offset well or wells in good faith as required by law and the rules and regulations adopted by the Commissioner of the General Land Office, or if Lessee should fail to file reports in the manner required by law or fail to comply with rules and regulations promulgated by the General Land Office, the School Land Board, or the Railroad Commission, or if Lessee should refuse the proper authority access to the records pertaining to operations, or if Lessee or an authorized agent should knowingly fail or refuse to give correct information to the proper authority, or knowingly fail or refuse to furnish the General Land Office a correct log of any well, or if Lessee shall knowingly violate any of the material provisions of this lease, or if this lease is assigned and the assignment is not filed in the General Land Office as required by law, the rights acquired under this lease shall be subject to forfeiture by the Commissioner, and he shall forfeit same when sufficiently informed of the facts which authorize a forfeiture, and when forfeited the area shall again be subject to lease under the terms of the Relinquishment Act. However, nothing herein shall be construed as waiving the automatic termination of this lease by operation of law or by reason of any special limitation arising hereunder. Forfeitures may be set aside and this lease and all rights thereunder reinstated before the rights of another intervene upon satisfactory evidence to the Commissioner of the General Land Office of future compliance with the provisions of the law and of this lease and the rules and regulations that may be adopted relative hereto.

33. LIEN. In accordance with Texas Natural Resources Code 52.136, the State shall have a first lien upon all oil and gas produced from the area covered by this lease to secure payment of all unpaid royalty and other sums of money that may become due under this lease. By acceptance of this lease, Lessee grants the State, in addition to the lien provided by Texas Natural Resources Code 52.136 and any other applicable statutory lien, an express contractual lien on and security interest in all leased minerals in and extracted from the leased premises, all proceeds which may accrue to Lessee from the sale of such leased minerals, whether such proceeds are held by Lessee or by a third party, and all fixtures on and improvements to the leased premises used in connection with the production or processing of such leased minerals in order to secure the payment of all royalties or other amounts due or to become due under this lease and to secure payment of any damages or loss that Lessor may suffer by reason of Lessee's breach of any covenant or condition of this lease, whether express or implied. This lien and security interest may be foreclosed with or without court

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proceedings in the manner provided in the Title I, Chapter 9 of the Texas Business and Commerce Code. Lessee agrees that the Commissioner may require Lessee to execute and record such instruments as may be reasonably necessary to acknowledge, attach or perfect this lien. Lessee hereby represents that there are no prior or superior liens arising from and relating to Lessee's activities upon the above-described property or from Lessee's acquisition of this lease. Should the Commissioner at any time determine that this representation is not true, then the Commissioner may declare this lease forfeited as provided herein.

34. POOLING. Lessee is hereby granted the right to pool or unitize the royalty interest of the owner of the soil under this lease with any other leasehold or mineral interest for the exploration, development and production of oil or gas or either of them upon the same terms as shall be approved by the School Land Board and the Commissioner of the General Land Office for the pooling or unitizing of the interest of the State under this lease pursuant to Texas Natural Resources Code 52.151-52.153. The owner of the soil agrees that the inclusion of this provision in this lease satisfies the execution requirements stated in Texas Natural Resources Code 52.152.

35. INDEMNITY. Lessee hereby releases and discharges the State of Texas and the owner of the soil, their officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns, of and from all and any actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including, but not limited to, all losses and expenses which are caused by the activities of Lessee, its officers, employees, and agents arising out of, incidental to, or resulting from, the operations of or for Lessee on the leased premises hereunder, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement, or by any other negligent or strictly liable act or omission of Lessee. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees and agents, their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, under any theory including tort, contract, or strict liability, including attorneys' fees and other legal expenses, including those related to environmental hazards, on the leased premises or in any way related to Lessee's failure to comply with any and all environmental laws; those arising from or in any way related to Lessee's operations or any other of Lessee's activities on the leased premises; those arising from Lessee's use of the surface of the leased premises; and those that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Agreement or any other act or omission of Lessee, its directors, officers, employees, partners, agents, contractors, subcontractors, guests, invitees, and their respective successors and assigns. Each assignee of this Agreement, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless the State of Texas and the owner of the soil, their officers, employees, and agents in the same manner provided above in connection with the activities of Lessee, its officers, employees, and agents as described above. **EXCEPT AS OTHERWISE EXPRESSLY LIMITED HEREIN, ALL OF THE INDEMNITY OBLIGATIONS AND\OR LIABILITIES ASSUMED UNDER THE TERMS OF THIS AGREEMENT SHALL BE WITHOUT LIMITS AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF (EXCLUDING PRE-EXISTING CONDITIONS), STRICT LIABILITY, OR THE NEGLIGENCE OF ANY PARTY OR PARTIES (INCLUDING THE NEGLIGENCE OF THE INDENINIFIED PARTY), WHETHER SUCH NEGLIGENCE BE SOLE, JOINT, CONCURRENT, ACTIVE, OR PASSIVE.**

36. ENVIRONMENTAL HAZARDS. Lessee shall use the highest degree of care and all reasonable safeguards to prevent contamination or pollution of any environmental medium, including soil, surface waters, groundwater, sediments, and surface or subsurface strata, ambient air or any other environmental medium in, on, or under the leased premises, by any waste, pollutant, or contaminant. Lessee shall not bring or permit to remain on the leased premises any asbestos containing materials, explosives, toxic materials, or substances regulated as hazardous wastes, hazardous materials, hazardous substances (as the term "Hazardous Substance" is defined in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Sections 9601, et seq.), or toxic substances under any federal, state, or local law or regulation ("Hazardous Materials"), except ordinary products commonly used in connection with oil and gas exploration and development operations and stored in the usual manner and quantities. **LESSEE'S VIOLATION OF THE FOREGOING PROHIBITION SHALL CONSTITUTE A MATERIAL BREACH AND DEFAULT HEREUNDER AND LESSEE SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND THE STATE OF TEXAS AND THE OWNER OF THE SOIL FROM AND AGAINST ANY CLAIMS, DAMAGES, JUDGMENTS, PENALTIES, LIABILITIES, AND COSTS (INCLUDING REASONABLE ATTORNEYS' FEES AND COURT COSTS) CAUSED BY OR ARISING OUT OF (I) A VIOLATION OF THE FOREGOING PROHIBITION OR (II) THE PRESENCE, RELEASE, OR DISPOSAL OF ANY HAZARDOUS MATERIALS ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OR CONTROL OF THE LEASED PREMISES. LESSEE SHALL CLEAN UP, REMOVE, REMEDY AND REPAIR ANY SOIL OR GROUND WATER CONTAMINATION AND DAMAGE CAUSED BY THE PRESENCE OR RELEASE OF ANY HAZARDOUS MATERIALS IN, ON, UNDER, OR ABOUT THE LEASED PREMISES DURING LESSEE'S OCCUPANCY OF THE LEASED PREMISES IN CONFORMANCE WITH THE REQUIREMENTS OF APPLICABLE LAW. THIS INDEMNIFICATION AND ASSUMPTION SHALL APPLY, BUT IS NOT LIMITED TO, LIABILITY FOR RESPONSE ACTIONS UNDERTAKEN PURSUANT TO CERCLA OR ANY OTHER ENVIRONMENTAL LAW OR REGULATION. LESSEE SHALL IMMEDIATELY GIVE THE STATE OF TEXAS AND THE OWNER OF THE SOIL WRITTEN NOTICE OF ANY BREACH OR SUSPECTED BREACH OF THIS PARAGRAPH, UPON LEARNING OF THE PRESENCE OF ANY HAZARDOUS MATERIALS, OR UPON RECEIVING A NOTICE FROM ANY GOVERNMENTAL AGENCY PERTAINING TO HAZARDOUS MATERIALS WHICH MAY AFFECT THE LEASED PREMISES. THE OBLIGATIONS OF LESSEE HEREUNDER SHALL SURVIVE THE EXPIRATION OR EARLIER TERMINATION, FOR ANY REASON, OF THIS AGREEMENT.**

37. APPLICABLE LAW. This lease is issued under the provisions of Texas Natural Resources Code 52.171 through 52.190, commonly known as the Relinquishment Act, and other applicable statutes and amendments thereto, and if any provision in this lease does not conform to these statutes, the statutes will prevail over any nonconforming lease provisions.

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38. EXECUTION. This oil and gas lease must be signed and acknowledged by the Lessee before it is filed of record in the county records and in the General Land Office of the State of Texas. Once the filing requirements found in Paragraph 39 of this lease have been satisfied, the effective date of this lease shall be the date found on Page 1.

39. LEASE FILING. Pursuant to Chapter 9 of the Texas Business and Commerce Code, this lease must be filed of record in the office of the County Clerk in any county in which all or any part of the leased premises is located, and certified copies thereof must be filed in the General Land Office. This lease is not effective until a certified copy of this lease (which is made and certified by the County Clerk from his records) is filed in the General Land Office in accordance with Texas Natural Resources Code 52.183. Additionally, this lease shall not be binding upon the State unless it recites the actual and true consideration paid or promised for execution of this lease. The bonus due the State and the prescribed filing fee shall accompany such certified copy to the General Land Office.

40. See attached Exhibit "A" for additional provisions.

Clay Johnson

Clay Johnson

Date: July 29, 2011

STATE OF TEXAS

BY: Mary Jane Barron
Individually and as agent for the State of Texas
Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

DATE: July 27th 2011

STATE OF TEXAS

BY: Mary Jane Barron
Individually and as agent for the State of Texas

DATE: July 27th 2011

(INDIVIDUAL ACKNOWLEDGMENT)

STATE OF TEXAS

COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared **Clay Johnson** known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the 29th day of July, 2011.

NATHAN SYKES
Notary Public in and for the State of TEXAS

NATHAN SYKES
Notary Public, State of Texas
My Commission Expires
June 27, 2015

STATE OF

COUNTY OF

(INDIVIDUAL ACKNOWLEDGMENT)

Before me, the undersigned authority, on this day personally appeared **Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92** known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the 27 day of July, 2011.

Notary Public in and for the State of Washington

KACEY L SOUKI
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
DECEMBER 15, 2013

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EXHIBIT "A"

ATTACHED TO AND MADE PART OF THAT CERTAIN OIL AND GAS LEASE
DATED JULY 20, 2011, BY AND BETWEEN THE STATE OF TEXAS, ACTING BY AND
THROUGH ITS AGENT, MARY JANE BARRON, INDIVIDUALLY AND AS TRUSTEE OF THE MARY JANE
BARRON REVOCABLE LIVING TRUST U/T/A DATED 07/27/92, AS LESSOR, AND
CLAY JOHNSON, AS LESSEE

1. If, at the expiration of the primary term, this lease is being maintained in force under any provision of the lease, or within 180 days prior to the expiration of the primary term Lessee has completed a well as a dry hole or commenced a well on the leased premises or lands pooled therewith, or Lessee is then engaged in operations on the leased premises or lands pooled therewith, Lessee agrees to begin a continuous drilling program within 180 days after the end of the primary term or within 180 days after completion of such well or the cessation of such operations, whichever is the later date; and thereafter to carry on the continuous drilling program on the leased premises or lands pooled therewith until all proration units have been drilled, allowing not more than 180 days to elapse between the completion of one well and the commencement of the succeeding well. Should Lessee fail to begin the continuous drilling program or subsequently default in the performance thereof, then in either event, this lease shall terminate as to all lands covered hereby, save and except for the proration unit surrounding each well then producing, capable of producing or upon which operations are being conducted, limited, respectively, to those depths from the surface down to the stratigraphic equivalent of the depth 100 feet below the total depth drilled in any such proration unit. As used in this paragraph: i) the term "commission" means the Railroad Commission of the State of Texas or any successor agency, ii) the term "proration unit" means any acreage designated as a drilling unit or production unit in accordance with the rules of the commission (or any other governmental authority having jurisdiction) or any unit formed by pooling as provided in this lease or otherwise, iii) the terms "commenced" and "commencement" mean the date when a well is spudded, and iv) the terms "completed" and "completion" mean the date the initial potential test report is filed with the commission, if a productive well, or the date the plugging report is filed with the commission, if a dry hole. Notwithstanding the partial termination of this lease, Lessee shall continue to have the rights of ingress and egress across all of the leased premises to and from lands that remain subject to this lease, or lands pooled therewith, for the purposes described in paragraph 1 hereof, together with easements and rights of way for roads, pipelines, flowlines and other facilities on or across all of the leased premises for the exploration, development, production, gathering or transportation of oil, gas and other products from the lands still subject to this lease or lands pooled therewith. The sole liability or penalty for the failure of Lessee to drill any well or wells required or permitted by this lease shall be the termination or partial termination of Lessee's rights under the lease as provided above.

2. Notwithstanding anything to the contrary contained in Paragraph Three (3) of this Lease, for all purposes this lease shall be a fully Paid-Up Oil & Gas Lease for the first three years. Delay Rentals have been paid in full with the Bonus Consideration tendered herein. Delay Rental payment was based on a $1.00 per net mineral acre per year for Two (2) Years. Concluding a $2.00 per acre Pd-Up Rental Payment was made in advance for the Two (2) Year Period on the net mineral acres indicated in this Lease.

3. PAYMENTS OF MINIMUM ROYALTY AND SHUT-IN ROYALTY. Paragraph 5 (minimum Royalty) and Paragraph 14 (Shut in Royalty) contains a reference to a computation based upon the delay rental amount specified in Paragraph 3. However, notwithstanding anything contained herein to the contrary, the undersigned do hereby recognize, acknowledge and agree that i) all minimum royalty payments due pursuant to Paragraph 5 shall be calculated on the basis of the delay rental amount being one dollar ($1.00) per acre, and ii) all shut-in royalty payments due pursuant to Paragraph 14 shall be calculated on the basis of double the annual rental amount of one dollar ($1.00) per acre (being two dollars ($2.00) per acre), but not less than $1200.00 a year for each well capable of producing oil and gas in paying quantities.

4. The rentals for the 1st anniversary date and for the 2nd anniversary date have been pre-paid with the bonus for this lease and no additional payments for the 1st anniversary date and for the 2nd anniversary date are due and payable. The total payment to the State and to the owner of the soil is $1,302.00 per acre. The state and the owner of the soil have split the total payment of $1,302.00 per acre equally.

If delay rentals are paid on or before the 3rd anniversary date, the total rental paid shall be $1,144,880.00.
Said payment will include a pre-payment for the delay rentals for the 4th anniversary date.
Payments shall be made as follows: To the owner of the soil: $572,440.00
To the State of Texas: $572,440.00

Filed for record on the 4th **day of** August**, A.D. 2011 @** 9:23 **o'clock** A **.M. and**
duly recorded on the 4th **day of** August**, A.D. 2011@** 9:45 **o'clock** A **.M.**

By Dina C. Lucero **, Deputy**

LINDA MCDONALD, COUNTY CLERK
CULBERSON COUNTY, TEXAS

True and Correct copy of Original filed in Culberson County Clerks Office
1-5-2015

File No. MF113061 (20)

Certified Copy of Lease ~~County~~

Date Filed: 01/08/2015

George P. Bush, Commissioner

By

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF CULBERSON

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the Official Records of my office, found in VOL. 126, PAGE 466

I hereby certified on 5 Jan 2015

LINDA REDDELL, COUNTY & DISTRICT CLERK
CULBERSON COUNTY, TEXAS

BY DEPUTY

Certified Copy of Lease Filing Fee

15706215 6449

EXPLORATION LAND SERVICES, LLC
P.O. BOX 52105
LAFAYETTE, LA 70505-2105

IBERIABANK
84-7041-2652

1/7/2015

PAY TO THE ORDER OF Texas General Land Office $ **50.00

Fifty and 00/100********** DOLLARS

Security features. Details on back.

Texas General Land Office
1700 Congress Avenue
Stephen F. Austin Building RM847
Austin, TX 78701

MEMO

AUTHORIZED SIGNATURE

⑈006449⑈ [redacted]

EXPLORATION LAND SERVICES, LLC 6449

Texas General Land Office 1/7/2015

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
1/7/2015	Bill	Filing Fees	50.00	50.00		50.00
					Check Amount	50.00

121

15706215

Iberia Bank 50.00

15706215

EXPLORATION LAND SERVICES, LLC
4021-B Ambassador Caffery Pkwy, Suite 200, Lafayette, Louisiana 70503-5281 • Phone: 337.234.3500 • Fax: 337.234.3525 • Email: contact@explorationland.com

January 7, 2015

Via FedEx

Ms. Linda Price
Texas General Land Office
1700 Congress Avenue
Stephen F. Austin Building, RM 845 E
Austin, Texas 78701

Re: Oil, Gas and Mineral Lease
Reeves County, Texas

Dear Linda:

As per the request of Ms. Brenda Guzman with BHP Billiton Petroleum Properties (N.A.), LP, enclosed herewith, please find one (1) certified copy of that certain Oil and Gas Lease, dated July 20, 2011, between Mary Jane Barron, et al and Clay Johnson, filed at Volume 106, Page 466, under Instrument Number 67163 of the Oil & Gas Records of Culberson County, Texas. Also enclosed, please find a check in the amount of $50 to cover the filing fee for said lease.

I trust that you will not hesitate to call me with any questions that you may have concerning this matter.

Sincerely yours,

Natalie Holeman

encl.

File No. MF-113061 (21)

~~County~~

Filing Fee - Certified Copy of Lease

Date Filed: 01/08/2015

George P. Bush, Commissioner

By

MF 113061

DIVISION ORDER

bhpbilliton
resourcing the future

To: **BHP Billiton Petroleum**
Land Administration
P O Box 22719
Houston, TX 77027-9998
(877) 311- 1443

Issue Date:	1/27/2014
Property Name:	HORSESHOE SPRINGS STATE 113-10 1H
Property #:	P1L654/00501
Production:	ALL PRODUCTS
Operator:	BHP BILLITON PETROLEUM (TXLA OPERATING)
Legal Description:	PSL ABST/ID# 5093 Grantee H.T. COLLIER Blk 113 Sec 10 CULBERSON COUNTY, TEXAS; PSL ABST/ID# 1266 Grantee W.H. HICKS Blk 113 Sec 15 CULBERSON COUNTY, TEXAS (962.70 ACRES)

CREDIT TO
Owner # 80113944
STATE OF TEXAS GLO
1700 N CONGRESS
RM 640
AUSTIN TX 78701-1495

Decimal	Type	Status	Reason	Start Date
0.12500000	RI	PAY		12/1/2013

11:25:14

File No. MF 113061
Division Order

Date Filed: 1/29/14
Jerry Patterson, Commissioner

By EA

North America Shale Production Division

March 4, 2015

Via Overnight Mail (FedEx Trkg #7730 4394 6883)
Texas General Land Office
Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701-1495

Attention: J. Daryl Morgan, CPL, Energy Resources Division

Dear Mr. Morgan:

Enclosed you will find two (2) copies of recorded Pooling Agreements, BHP Petroleum Properties (N.A.) LP, Horseshoe Springs State 113-24X1 #1H Unit, GLO Unit No. 7219, and Horseshoe Springs State 113-10 #1 Unit, GLO Unit No. 7222, Reeves County, Texas for your further handling.

Should you need any additional information, please feel free to contact Tiffany Wright at 713-297-6566, or email Tiffany.Wright@bhpbilliton.com .

Sincerely,

Paige Plunkett
Land Tech

/pp
Enclosures

BHP Billiton • Land Department-Permian • P O Box 22719 • Houston, TX 77027-9998
1360 Post Oak Blvd, Office 2111B • Houston, TX 77056 • Direct 713.552.4470 • Fax 713.966.2914
Email: Paige.Plunkett@bhpbilliton.com • www.bhpbilliton.com

(23)

File No. M-113061

Ltr. From BHP ~~County~~

Date Filed: 3/6/15

George P. Bush, Commissioner

By

M-113061

Doc# 00000071304

POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HORSESHOE SPRINGS STATE 113-10 #1H UNIT
GLO UNIT NO. 7222
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C". The unit description is subject to the provisions of Addendum "A".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to those depths underlying the surface boundaries of the pooled unit from the surface to the stratigraphic equivalent of the base of the Wolfcamp Formation, which is seen at a depth of 10,637 feet on the log of the Devon Energy Production Company, LP, Sebring 60-1-47 Well No. 1, API #42-109-32367 ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement. In the event the unitized area covered by this Agreement is maintained in force by drilling or reworking operations conducted on a directional well drilled under the unitized area from a surface location on adjacent or adjoining lands not included within the boundaries of the unitized area, such operations shall be considered to have been commenced on the unitized area when drilling is commenced on the adjacent or adjoining land for the purpose of directionally drilling under the unitized area and production of oil or gas from the unitized area through any directional well surfaced on adjacent or adjoining land or drilling or reworking of any such directional well shall be considered production or drilling or reworking operations, as the case may be, on the unitized area for all purposes under this Agreement. Nothing in this Agreement is intended or shall be construed as granting to Lessee any leasehold interest, easements, or other rights in or with respect to any such adjacent or adjoining land in addition to any such leasehold interests, easements, or other rights which the lessee, operator or other interest owner in the unitized area may have lawfully acquired from the state or others.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than 962 acres, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of November 5, 2014.

TERM: 9.

This Agreement shall remain in effect so long as the pooled mineral is being produced from said unit, or so long as all leases included in the pooled unit are maintained in force by payment of delay rentals or shut-in oil or gas well royalties, by drilling or rework, or by other means, in accordance with the terms of said leases. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease covered by this Agreement.

SPECIAL TERMS AND CONDITIONS: 10.

Notwithstanding anything contained herein to the contrary, this Agreement is subject to the terms and conditions of the attached Addendum "A".

STATE LAND: 11.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 12.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 13.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

SUBJECT TO EXPLORATION AGREEMENT: 14.

This Pooling Agreement is subject to that certain Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit effective July 18, 2014, said Unit Agreement being on file in the Archives and Records of the Texas General Land office in Mineral file M-112402.

COUNTERPARTS: 15.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 12/22/14

STATE OF TEXAS

By: _____
Jerry E. Patterson, Commissioner
General Land Office

Legal
Content
Geology
Executive

Date Executed _____

BHP Billiton Petroleum Properties (N.A.), LP,
formerly known as Petrohawk Properties, LP,
By: BHP Billiton Petroleum Properties (GP), LLC,
its General Partner

By: _____
Stephen L. Mahanay, Attorney-in-Fact

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on Dec. 16, 2014, by Stephen L. Mahanay, Attorney-in-Fact of BHP Billiton Petroleum Properties (N.A.), LP formerly known as Petrohawk Properties, LP, by BHP Billiton Petroleum Properties (GP), LLC, its General Partner a Texas limited liability company on behalf of said limited partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

_____
Notary Public in and for the State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 9th day of December, 2014, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 22nd day of December, 2014.

_____
Secretary of the School Land Board

Addendum "A"

To that certain Pooling Agreement for the HORSESHOE SPRINGS STATE 113-10 UNIT

The parties hereby agree that should a conflict exist between this Addendum and the body of the agreement that this Addendum shall prevail.

The pooled unit shall consist of all of the lands herein described in the attached Exhibit "B" and depicted in the attached Exhibit "C", provided however that, on or before the expiration of the Extended Period, as defined in the Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit, (the "**Trigger Date**"), if Lessee has commenced actual drilling operations on one (1) Unit Well, then a "**Continuous Drilling Program**" shall commence, whereby, Lessee has the option to commence actual drilling operations on additional Unit Wells in accordance with the deadlines below:

- Two Years from the expiration of the Extended Period – 2nd Unit Well
- Three Years from the expiration of the Extended Period – 3rd Unit Well
- Four Years from the expiration of the Extended Period – 4th Unit Well

At such time as Lessee has drilled and completed four (4) Unit Wells, in accordance with the deadlines above, the Continuous Drilling Program shall cease and the parties hereby agree that the pooled unit shall remain in the original, unaltered size and shape described in Exhibit "B" and depicted in Exhibit "C", in accordance with paragraph 9 of the Agreement.

Lessee's failure to timely comply with the deadlines above shall result in the formation of a "**Contracted Pooled Unit**" in accordance with the following:

# of Unit Wells	Corresponding size & shape of the resulting Contracted Pooled Unit
1 Unit Well	240 Acres, more or less, comprised of the stand-up 240 acre, more or less, quarter of the original pooled unit containing the first Unit Well.
2 Unit Wells	480 Acres, more or less, comprised of a) the stand-up 480 acre, more or less, half of the original pooled unit containing the first Unit Well, or b) the two 240 acre, more or less, stand-up quarters of the original pooled unit containing each of the 2 Unit Wells, if said wells are not in the same half of the original pooled unit.
3 Unit Wells	720 Acres, more or less, comprised of a) the stand-up 480 acre, more or less, half of the original pooled unit containing the first Unit Well and the adjacent stand-up 240 acre, more or less, quarter of the original pooled unit, or b) the stand-up 480 acre, more or less, half of the original pooled unit containing the first unit well and the non-adjacent stand-up 240 acre, more or less, quarter of the original pooled unit, if said non-adjacent quarter contains a wellbore, or c) the three 240 acre, more or less, stand-up quarters of the original pooled unit containing each of the 3 Unit Wells.

It is the intent of the parties that each wellbore drilled within the original pooled unit shall earn 240 acres, more or less, or one quarter of the original pooled unit acreage as described on Exhibit "B" and depicted on Exhibit "C".

End of Addendum "A"

Exhibit "A"

Leases In Unit

State Lease #: MF-113596A

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 510, Doc # 67191, Filed: 08/18/2011, Culberson County, Texas

Royalty: 25%

State Lease #: MF-113601A

Lessor: State of Texas, acting by and through its agent, Roddy L. Harrison, Trustee of the Harrison Trust Under Trust Indenture Dated 04/25/96, As Amended

Lessee: Legend Natural Gas IV, LP

Date: 07/29/2011

Recording Info: Book 106, Page 560, Doc # 67196, Filed: 08/18/2011 Culberson County, Texas

Royalty: 25%

State Lease #: MF-113061A

Lessor: State of Texas, acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a Dated 07/27/92

Lessee: Clay Johnson

Date: 07/20/2011

Recording Info: Book 106, Page 466, Doc # 67163, Filed: 08/04/2011, Culberson County, Texas

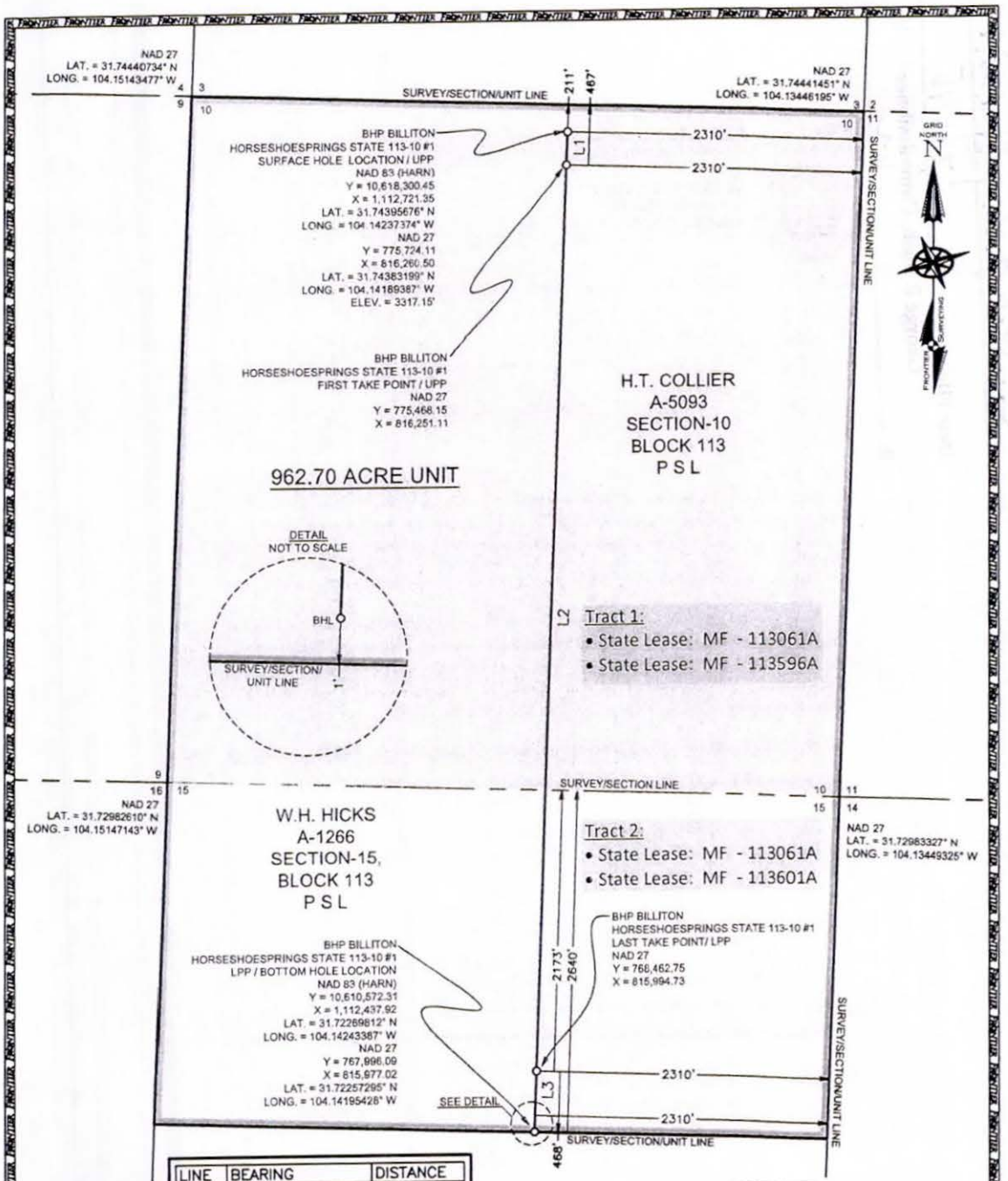
Royalty: 25%

Exhibit "B"

Description of Lands included in the Pooling Agreement

Tract 1:
All of Section 10, BLK 113, Public School Land Survey, Culberson County Texas.

Tract 2:
The North Half of Section 15, BLK 113, Public School Land Survey, Culberson County, Texas.



LINE	BEARING	DISTANCE
L1	S 02°06'01" W	256.14'
L2	S 02°05'44" W	7010.19'
L3	S 02°10'24" W	467.00'

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1983 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CULBERSON CP1"
2. (Y = 10,602,573.78, X = 1,109,236.997)
3. VERTICAL DATUM IS NAVD 88
4. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
5. AREA, DISTANCES, AND COORDINATES ARE "GRID"
6. UNITS ARE UNITED STATES SURVEY FOOT.
7. COMBINED SCALE FACTOR = 0.999802604
8. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 27 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION AS STAKED ON THE GROUND 08/16/13. THIS SHOULD NOT BE CONSIDERED A BOUNDARY SURVEY.

SERGIO Z. CANALES
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6040

STATE OF TEXAS
REGISTERED
SERGIO Z. CANALES
6040
PROFESSIONAL
LAND SURVEYOR

PLOT DATE:09-25-13 9:51 AM

PLAT OF:

A WELL LOCATION FOR:

BHP BILLITON Pet (TXLA OP)

HORSESHOESPRINGS STATE 113-10 #1
FORD, WEST (WOLFCAMP)

SITUATED IN SECTION 10, BLOCK 113, THE H.T. COLLIER SURVEY, A-5093, AND SECTION 15, BLOCK 113, THE W.H. HICKS SURVEY, A-1266, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 14.6 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 08/16/13	File Name: 1308031.DWG		
Scale: 1" = 1000'	Surveyed by: AD/MB		
Drawn by: SZC/MC/DP	Checked by: MC		

JOB #: 1308031

FRONTIER
SURVEYING COMPANY
SERVICES: LAND SURVEYING/LOCATIONS/PIPELINES/MAPPING/GPS/GIS
710 BUFFALO STREET, SUITE 700, CORPUS CHRISTI, TEXAS, 78401
PHONE: (361) 881 - 8044 FAX: (361) 881 - 8340
www.frontiersurveying.com

(24)

File No. M-113061

County

recorded Pooling Agrmt.

Date Filed: 3/6/15

George P. Bush, Commissioner

By

MF 113061
7222

DIVISION ORDER

bhpbilliton
resourcing the future

To: **BHP Billiton Petroleum**
Land Administration
P O Box 22719
Houston, TX 77027-9998
(877) 311- 1443

Issue Date:	6/6/2014
Property Name:	HORSESHOE SPRINGS STATE 113-10 1H
Property #:	P1L654/00501
Production:	ALL PRODUCTS
Operator:	BHP BILLITON PETROLEUM (TXLA OPERATING)
Legal Description:	PSL ABST/ID# 5093 Grantee H.T. COLLIER Blk 113 Sec 10 CULBERSON COUNTY, TEXAS ; PSL ABST/ID# 1266 Grantee W.H. HICKS Blk 113 Sec 15 CULBERSON COUNTY, TEXAS

CREDIT TO
Owner # 80113945
STATE OF TEXAS GLO
1700 N CONGRESS AVE #640
AUSTIN TX 78701-1495

Decimal	Type	Status	Reason	Start Date
0.12500000	RI	PAY		12/1/2013

PLEASE KEEP THIS COPY FOR YOUR RECORDS

41.91.9

TEXAS GENERAL LAND OFFICE

JERRY PATTERSON, COMMISSIONER

12/31/2014

BHP Billiton Petroleum
Attn: Ellie McVicar
P.O. Box 22719
Houston, Texas 77027

Re: State Pooled Unit No. 7222

Owner #: 80113945
Property No. P1654/00501
Horseshoe Springs State 113-10 1H

Dear Ellie,

The Texas General Land Office (GLO) has received your Division Order for the Horseshoe Springs State 113-10 1H Well. This Division Order has been filed in the appropriate mineral file.

The payment of royalties attributable to state-owned mineral and royalty interests is set by contract and applicable statutes and rules. The execution of division orders may, in some cases, affect the manner in which such payments are made or calculated. Therefore, Title 31, §9.32, of the Texas Administrative Code specifies that GLO staff cannot execute a division order or bind the state to any terms contained within it.

Subject to applicable state law and the state's right to take its production in-kind, the GLO acquiesces to the sale of oil and gas in accordance with the terms and conditions set out in the oil and gas lease. If you have questions concerning this matter, please feel free to e-mail me at brandon.nicholson@glo.texas.gov

Thank you,

Brandon Nicholson
Landman
Mineral Leasing

Enclosure

25.

File No. MF 113061
Division order

Date Filed: 6-16-14
Jerry E. Patterson, Commissioner

By JF

DO NOT DESTROY

Texas General Land Office

UNIT AGREEMENT MEMO

UPA158825

Unit Number 7505
Operator Name Bhp Billiton Petroleum Properties (N.A.), LP
Customer ID C000081914 C-44995
Unit Name HSS State 113-23X14
County 1 Culberson
County 2
County 3
County 4
Unit type Permanent
State Net Revenue Interest 0.12500000
State Part in Unit 1.00000000
Unit Depth Specified Depths
From Depth Surface
To Depth 11465 MD

RRC District 1 08
RRC District 2
RRC District 3
RRC District 4

Effective Date
Unitized For Oil And Gas
Unit Term
Old Unit Number *Inactive Status Date*

Well
Formation TopBase of Wolfcamp
Participation Basis Surface Acreage
If Excluions Apply: See Remarks

Lease Number	Tract No	Lease Acres in Unit	Total Unit Acres	Tract Participation	Lease Royalty	Tract Royalty Participation	Royalty Rate Reduction Clause
MF113603	1	238.980000	642.630000	0.37187806	0.12500000	0.04648476	No
MF113061 ?	2	79.660000	642.630000	0.12395935	0.12500000	0.01549492	No
MF115984	3	81.000000	642.630000	0.12604454	0.12500000	0.01575557	No
MF116836	4	242.990000	642.630000	0.37811805	0.12500000	0.04726476	

API Number
4210932850

Remarks:

Prepared By:	TM	*Prepared Date:*	06/02/2015
GLO Base Updated By:	TM	*GLO Base Date:*	06/02/2015
RAM Approval By:	VH	*RAM Approval Date:*	06/08/2015
GIS By:	MC	*GIS Date:*	10-20-15
Well Inventory By:		*WI Date:*	6/2/15

Pooling Committee Report

To:	**School Land Board**	**UPA158825**
Date of Board Meeting:	**06/02/2015**	**Unit Number: 7505**
Effective Date:		
Unit Expiration Date:		
Applicant:	**BHP Billiton Petroleum Properties (N. A.), LP**	
Attorney Rep:		
Operator:	**Bhp Billiton Petroleum (TxLa Operating) Company, Houston**	
Unit Name:	**HSS State 113-23X14**	
Field Name:	**PHANTOM (WOLFCAMP)**	
County:	Culberson	

Lease Type	Lease Number	Lease Royalty	Expiration Date	Lease Term	Lease Acres	Lease Acres In Unit	Royalty Participation
RAL	MF113061	0.12500000	07/20/2016	5 years	880.000000	79.660000	0.01549492
RAL	MF113603	0.12500000	07/29/2014	3 years	960.000000	238.980000	0.04648476
RAL	MF115984	0.12500000	09/24/2018	5 years	320.000000	81.000000	0.01575557
RAL	MF116836	0.12500000	07/22/2016	2 years	240.000000	242.990000	0.04726476

Private Acres:	0.000000
State Acres:	642.630000
Total Unit Acres:	642.630000

Participation Basis:	Surface Acreage
Surface Acreage	
State Acreage:	100.00%
State Net Revenue Interest:	12.50%

Unit Type:	**Unitized for:**
Permanent	Oil And Gas
Term:	

RRC Rules:	**Spacing Acres:**
Yes	704 acres for a 10,000 foot lateral (FTP to LTP).

Working File Number: UPA158825

REMARKS:

- BHP Billiton Petroleum Properties (N.A.), LP is requesting permanent oil and gas pooling from Surface to 11,465 feet MD as seen on the FortuneUnit 2R well log (42-389-31270) in order to test the Wolfcamp Formation.
- The applicant spud the unit well on May 13, 2015, with a proposed TD of 9,050 feet TVD. A 10,000 foot lateral is expected to be drilled.
- With approval of the unit the State's unit royalty participation will be 12.50%.
- The State will participate on a unitized basis from the date of first production.
- The applicant has agreed to drill a second unit well within three years of the spud date of the first unit well or the unit will decrease in size to 320 acres.

POOLING COMMITTEE RECOMMENDATION:

The Pooling Committee recommends Board approval of a permanent oil and gas unit under the above-stated provisions.

MSmith — 5/20/15

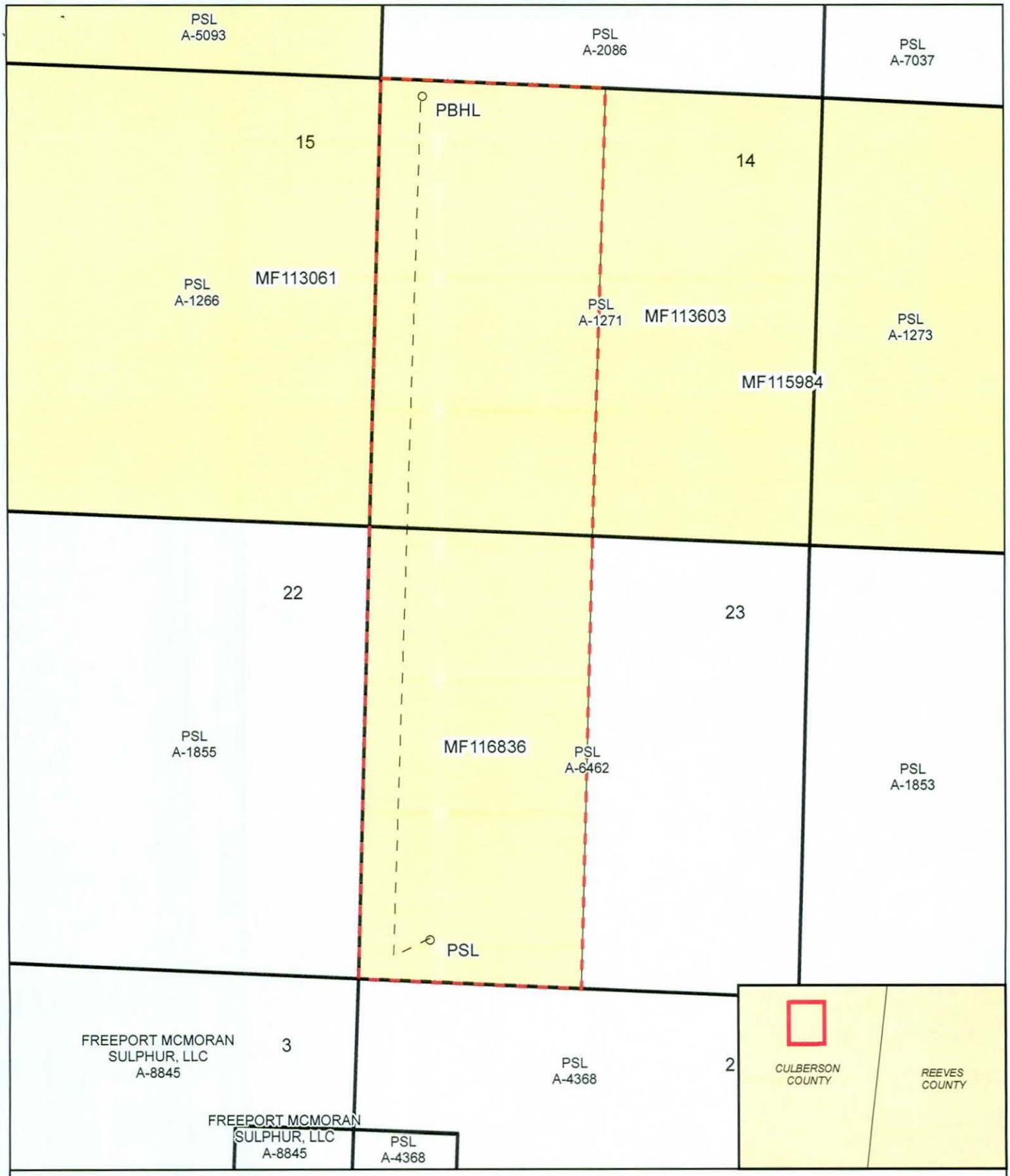
Mary Smith - Office of the Attorney General — Date

RJH — 5/19/15

Robert Hatter - General Land Office — Date

DMorris — 5-19-2015

Diane Morris - Office of the Governor — Date



Unit #7505
BHP Billiton Petroleum Properties (NA), Lp.
HSS State 113-23X14 Unit
Phantom (Wolfcamp) Field
Culberson County, Texas

1,500 750 0 1,500 Feet

The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. This map IS NOT suitable for navigational purposes and does not purport to depict or establish boundaries between private and public land.

Map Generated by:
Mark Conway
IS/BAS/GIS
June 2015

POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HSS STATE 113-23X14 UNIT
GLO UNIT NO. 7505
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C". The unit description is subject to the provisions of Addendum "A".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to those depths underlying the surface boundaries of the pooled unit from the surface to the stratigraphic equivalent of the base of the Wolfcamp Formation, which is seen at a depth of 11,465 feet MD on the log of the Fortune Unit Well No. 2R, API #42-389-31270 ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement. In the event the unitized area covered by this Agreement is maintained in force by drilling or reworking operations conducted on a directional well drilled under the unitized area from a surface location on adjacent or adjoining lands not included within the boundaries of the unitized area, such operations shall be considered to have been commenced on the unitized area when drilling is commenced on the adjacent or adjoining land for the purpose of directionally drilling under the unitized area and production of oil or gas from the unitized area through any directional well surfaced on adjacent or adjoining land or drilling or reworking of any such directional well shall be considered production or drilling or reworking operations, as the case may be, on the unitized area for all purposes under this Agreement. Nothing in this Agreement is intended or shall be construed as granting to Lessee any leasehold interest, easements, or other rights in or with respect to any such adjacent or adjoining land in addition to any such leasehold interests, easements, or other rights which the lessee, operator or other interest owner in the unitized area may have lawfully acquired from the state or others.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than the number of acres included in the pooled unit, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of May 13, 2015.

TERM: 9.

This Agreement shall remain in effect so long as the pooled mineral is being produced from said unit, or so long as all leases included in the pooled unit are maintained in force by payment of delay rentals or shut-in oil or gas well royalties, by drilling or rework, or by other means, in accordance with the terms of said leases. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease covered by this Agreement.

SPECIAL TERMS AND CONDITIONS: 10.

Notwithstanding anything contained herein to the contrary, this Agreement is subject to the terms and conditions of the attached Addendum "A".

STATE LAND: 11.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 12.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 13.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

SUBJECT TO EXPLORATION AGREEMENT: 14.

This Pooling Agreement is subject to that certain Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit effective July 18, 2014, said Unit Agreement being on file in the Archives and Records of the Texas General Land office in Mineral file M-112402.

COUNTERPARTS: 15.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 6/17/15

STATE OF TEXAS

By: _____
George P. Bush, Commissioner
General Land Office

Legal
Content
Geology
Executive

Date Executed _____

BHP Billiton Petroleum Properties (N.A.), LP,
formerly known as Petrohawk Properties, LP,
By: BHP Billiton Petroleum Properties (GP), LLC,
its General Partner

By: _____
Stephen L. Mahanay, Attorney-in-Fact C.F.A.

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on June 9, 2015, by Stephen L. Mahanay, Attorney-in-Fact of BHP Billiton Petroleum Properties (N.A.), LP formerly known as Petrohawk Properties, LP, by BHP Billiton Petroleum Properties (GP), LLC, its General Partner a Texas limited liability company on behalf of said limited partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

_____
Notary Public in and for the State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 2nd day of June, 2015, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 22nd day of June, 2015.

_____
Secretary of the School Land Board

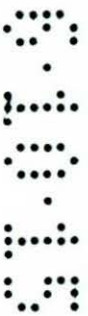
Addendum "A"

To that certain Pooling Agreement for the HSS STATE 113-23X14 UNIT

The parties hereby agree that should a conflict exist between this Addendum and the body of the agreement that this Addendum shall prevail.

The pooled unit shall consist of all of the lands herein described in the attached Exhibit "B" and depicted in the attached Exhibit "C", provided however that if actual drilling operations have not commenced on a second Unit Well on or before May 13, 2018, which is thereafter completed as a well capable of producing oil or gas in paying quantities, the pooled unit shall contract and shall thereafter consist of the stand-up approximately 321 acre half (East or West) of the pooled unit described in Exhibit "B" and depicted in Exhibit "C", containing the first Unit Well.

In the event Lessee commences actual drilling operations on a second Unit Well on or before May 13, 2018, and said second Unit Well is thereafter completed as a well capable of producing oil or gas in paying quantities, the parties hereby agree that the pooled unit shall remain in the original, unaltered size and shape described in Exhibit "B" and depicted in Exhibit "C", in accordance with paragraph 9 of the Agreement.



End of Addendum "A"

Exhibit "A"

Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), LP, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas

Leases in Unit

State Lease #: MF-113603

Soil Owner: State of Texas, acting by and through its agent Roddy L. Harrison, Trustee of the Harrison Trust under Trust Indenture Dated 04/25/96, as Amended

Lease Date: 07/29/2011

Recording Info: Recorded at File No. 67198, Book 106, Page 580, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: All of Section 13, and All of Section 14, Block 113, Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

State Lease #: MF-113061A

Soil Owner: State of Texas, Acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

Lease Date: 07/20/2011

Recording Info: Recorded at File No. 67163, Book 106, Page 466, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: All of Section 10, W/2 of Section 14, All of Section 15, All of Section 16, All of Section 21, and All of Section 22, Culberson County, Texas.

Lease Type: Relinquishment Act Lands

State Lease #: MF-115984

Soil Owner: State of Texas, Acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

Lease Date: 09/22/2013

Recording Info: Recorded at File No. 69553, Book 110, Page 98, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: All of Section 13; E/2 of Section 14; W/2 of Section 23 Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

State Lease #: MF-116836

Soil Owner: State of Texas, Acting by and through its agent, Yellow Top Ranch, Inc.

Lease Date: 09/22/2013

Recording Info: Recorded at File No. 70762, Official Oil and Gas Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: W/2 of Section 23; W/2 of Section 23 Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

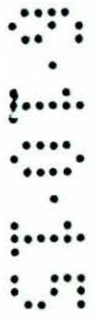


Exhibit "B"

Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), LP, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas
Description of Lands included in the Pooling Agreement

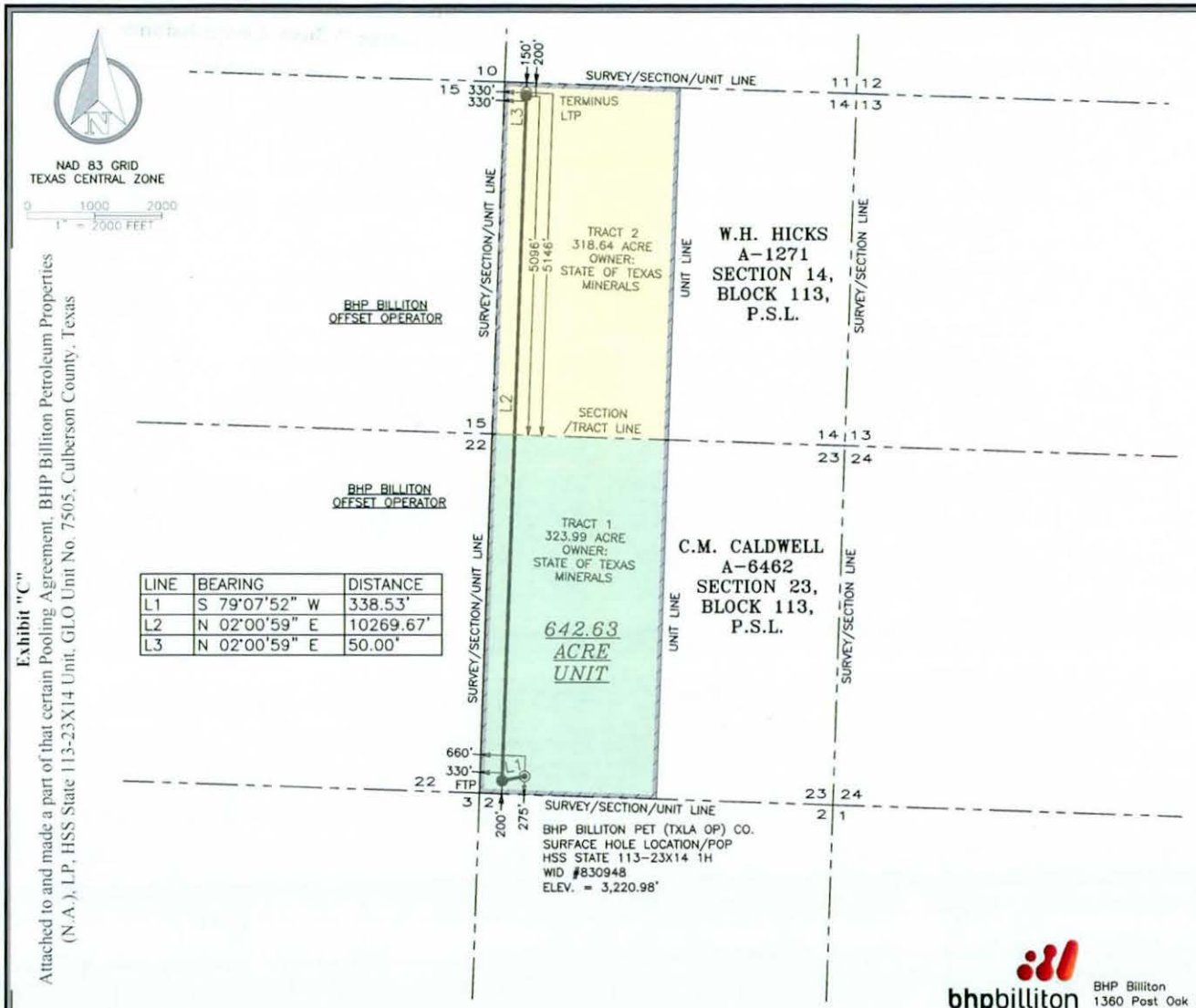
Tract 1:
The West Half of Section 14, BLK 113, Public School Land Survey, Culberson County, Texas.

Tract 2:
The West Half of Section 23, BLK 113, Public School Land Survey, Culberson County Texas.

5-10-15

Exhibit "C"

Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), L.P, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas



LINE	BEARING	DISTANCE
L1	S 79°07'52" W	338.53'
L2	N 02°00'59" E	10269.67'
L3	N 02°00'59" E	50.00'

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 27 "TEXAS CENTRAL ZONE" (EPSG 32039), AND BASED ON "LINDLEY" NGS MONUMENT (Y = 765,739.62, X = 920,110.41)
2. VERTICAL DATUM IS NAVD 88 (EPSG 5103)
3. COMBINED SCALE FACTOR = 0.999806055
4. GRID NORTH CONVERGENCE ANGLE IS -1°57'25.16619"
5. LATITUDE AND LONGITUDE ARE NAD 27 (EPSG 4267) AS SHOWN
6. AREA, DISTANCES, AND COORDINATES ARE "GRID"
7. UNITS ARE UNITED STATES SURVEY FOOT.
8. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

STATE OF TEXAS REGISTERED ROBERT GLEN MALOY 6028 PROFESSIONAL LAND SURVEYOR

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

REVISION	DATE	BY	DETAILS
A	02/13/15	RP	MAKE PRELIMINARY PLAT
B	03/10/15	GG	ADD TRACTS AND OFFSETS
C	04/09/15	GG	CHANGED TO UNIT
D	05/08/15	JK	REV. UNIT AND LATERAL

PLAT OF:

A PROPOSED WELL LOCATION FOR:

BHP BILLITON PET (TXLA OP) CO.

HSS STATE 113-23X14 1H

WID# 830948

SITUATED IN THE C.M. CALDWELL SURVEY, ABSTRACT NO. 6462, SECTION 23, BLOCK 113, AND THE W.H. HICKS SURVEY, ABSTRACT NO. 1271, SECTION 14, BLOCK 113, IN THE PUBLIC SCHOOL LANDS, LOCATED APPROX. 15.7 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

bhpbilliton

BHP Billiton
1360 Post Oak Blvd. #150
Houston, Texas 77056

FRANK SURVEYING COMPANY INC
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPLS Firm No. 10193887
www.franksurveying.com
LAND SURVEYING/ENERGY/GIS SERVICES

DATE:	05/08/15
DRAWN BY:	RP
CHECKED BY:	JK
FIELD CREW:	RE/MR
PROJECT NO:	2014121455
SCALE:	1" = 2000'
SHEET:	1 OF 2
REVISION:	0

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31-013

File No. M-113061

Pooling Agrmt. Packet #7505

County

HSS State 163-23X14 Unit

Date Filed: 06/6/15

George P. Bush, Commissioner

By

(26)

North America Shale Production Division

August 17, 2015

Via FedEx (Trkg. #7742 9874 7264)
Texas General Land Office
Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701-1495

Attention: J. Daryl Morgan, CPL, Energy Resources Division

Re: Certified Copy of Pooling Agreements
HSS State 113-23X14 Unit, GLO Unit No. 7505
HSS State 45-17X20 Unit, GLO Unit No. 7504
Culberson County, Texas

Dear Mr. Morgan:

Enclosed you will find Certified Copy of Pooling Agreement for BHP Billiton's HSS State 113-23X14 Unit, GLO Unit No. 7505 and HSS State 45-17X20 Unit, GLO Unit No. 7504, Culberson County, Texas for your records. A copy of the recorded documents will be furnished to the State when first made available.

Should you need any additional information, please feel free to contact Guy Aldrich, Transaction Manager at 713-968-2741 or email guy.aldrich@bhpbilliton.com .

Sincerely,

Lynn Latiolais

Lynn Latiolais, CPLTA
Land Technical Analyst

/ll
Enclosures

BHP Billiton • Land Department-Permian • P O Box 22719 • Houston, TX 77027-9998
1360 Post Oak Blvd, Office 2107A • Houston, TX 77056 • Direct 713.297.6557 • Fax 713.966.2914
Email: Lynn.Latiolais@bhpbilliton.com • www.bhpbilliton.com

ST.81.8

(27)

File No. M-113061

County

Ltr. From BHP

Date Filed: 8/18/15

George P. Bush, Commissioner

By

#00184

POOLING AGREEMENT
BHP BILLITON PETROLEUM PROPERTIES (N.A.), LP
HSS STATE 113-23X14 UNIT
GLO UNIT NO. 7505
CULBERSON COUNTY, TEXAS

THIS AGREEMENT is entered into by and between the Commissioner of the General Land Office, on behalf of the State of Texas, as "Lessor" and BHP Billiton Petroleum Properties (N.A.), LP, herein referred to as "Lessee", and such other interested parties as may join in the execution hereof, the undersigned parties herein collectively referred to as the "parties", in consideration of the mutual agreements hereinafter set forth and other valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and for the purposes and upon the terms and conditions which follow:

PURPOSES: 1.

This Pooling Agreement ("Agreement") is made for the purposes of conservation and utilization of the pooled mineral, to prevent waste, to facilitate orderly development and to preserve correlative rights. To such end, it is the purpose of this Agreement to effect equitable participation within the unit formed hereby. This Agreement is intended to be performed pursuant to and in compliance with all applicable statutes, decisions, regulations, rules, orders and directives of any governmental agency having jurisdiction over the production and conservation of the pooled mineral and in its interpretation and application shall, in all things, be subject thereto.

UNIT DESCRIPTION: 2.

The oil and gas leases, which are included within the pooled unit, are listed on the attached Exhibit "A", to which leases and the records thereof reference is here made for all pertinent purposes. The pooled unit shall consist of all of the lands described in Exhibit "B" attached hereto and made a part hereof. A plat of the pooled unit is attached hereto as Exhibit "C". The unit description is subject to the provisions of Addendum "A".

MINERAL POOLED: 3.

The mineral pooled and unitized ("pooled mineral") hereby shall be oil and gas including all hydrocarbons that may be produced from an oil well or a gas well as such wells are recognized and designated by the Railroad Commission of Texas or other state regulatory agency having jurisdiction of the drilling and production of oil and gas wells. The pooled mineral shall extend to those depths underlying the surface boundaries of the pooled unit from the surface to the stratigraphic equivalent of the base of the Wolfcamp Formation, which is seen at a depth of 11,465 feet MD on the log of the Fortune Unit Well No. 2R, API #42-389-31270 ("unitized interval").

POOLING AND EFFECT: 4.

The parties hereto commit all of their interests which are within the unit to the extent and as above described into said unit and unitize and pool hereunder the separate tracts described on the attached Exhibit "B", for and during the term hereof, so that such pooling or unitization shall have the following effect:

(a) The unit, to the extent as above described, shall be operated as an entirety for the exploration, development and production of the pooled mineral, rather than as separate tracts.

(b) All drilling operations, reworking or other operations with respect to the pooled mineral on land within the unit shall be considered as though the same were on each separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement. In the event the unitized area covered by this Agreement is maintained in force by drilling or reworking operations conducted on a directional well drilled under the unitized area from a surface location on adjacent or adjoining lands not included within the boundaries of the unitized area, such operations shall be considered to have been commenced on the unitized area when drilling is commenced on the adjacent or adjoining land for the purpose of directionally drilling under the unitized area and production of oil or gas from the unitized area through any directional well surfaced on adjacent or adjoining land or drilling or reworking of any such directional well shall be considered production or drilling or reworking operations, as the case may be, on the unitized area for all purposes under this Agreement. Nothing in this Agreement is intended or shall be construed as granting to Lessee any leasehold interest, easements, or other rights in or with respect to any such adjacent or adjoining land in addition to any such leasehold interests, easements, or other rights which the lessee, operator or other interest owner in the unitized area may have lawfully acquired from the state or others.

(c) Production of the pooled mineral from the unit allocated to each separate tract, respectively, as hereinafter provided, shall be deemed to have been produced from each such separate tract in the unit, regardless of the actual location of the well or wells thereon, for all purposes under the terms of the respective leases or other contracts thereon and this Agreement.

(d) All rights to the production of the pooled mineral from the unit, including royalties and other payments, shall be determined and governed by the lease or other contract pertaining to each separate tract, respectively, based upon the production so allocated to such tract only, in lieu of the actual production of the pooled mineral therefrom. Provided that, payments that are made on a per acre basis shall be reduced according to the number of acres pooled and included herein, so that payments made on a per acre basis shall be calculated based upon the number of acres actually included within the boundaries of the pooled unit covered by this Agreement.

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8-11-15

(e) A shut-in oil or gas well located upon any land or lease included within said unit shall be considered as a shut-in oil or gas well located upon each land or lease included within said unit; provided, however, that shut-in oil or gas well royalty shall be paid to the State on each State lease wholly or partially within the unit, according to the terms of such lease as though such shut-in oil or gas well were located on said lease, it being agreed that shut-in royalties provided in each State lease shall not be shared with other royalty owners.

(f) Notwithstanding any other provision hereof, it is expressly agreed that each State lease may be maintained in force as to areas lying outside the unitized area described in Exhibit "B" only as provided in each such lease without regard to unit operations or unit production. Neither production of the pooled mineral, nor unit operations with respect thereto, nor the payment of shut-in royalties from a unit well, shall serve to hold any State lease in force as to any area outside the unitized area described in Exhibit "B" regardless of whether the production or operations on the unit are actually located on the State lease or not. "Area" as used in this paragraph shall be based upon surface acres to the end that, except as may otherwise be provided in each State Lease, the area inside the surface boundaries of the pooled unit, if held, will be held as to all depths and horizons.

(g) If the Railroad Commission of Texas (or any other Texas regulatory body having jurisdiction) shall adopt special field rules providing for oil and/or gas proration units of less than the number of acres included in the pooled unit, then Lessee agrees to either (1) drill to the density permitted by the Railroad Commission, (2) make application to the School Land Board of the State of Texas to reform the unit to comply with Railroad Commission unit rules, or (3) make application to the School Land Board of the State of Texas for such remedy as may be agreeable to the Board.

(h) This Agreement shall not relieve Lessee from the duty of protecting the State leases described in Exhibit "A" and the State lands within the boundaries of the pooled unit described in Exhibit "B" from drainage from any well situated on privately owned land, lying outside the unitized area described in Exhibit "B", but, subject to such obligation, Lessee may produce the allowable for the entire unit as fixed by the Railroad Commission of Texas or other lawful authority, from any one or more wells completed thereon.

(i) There shall be no obligation to drill internal offsets to any other well on separate tracts within the pooled unit, nor to develop the lands within the boundaries thereof separately, as to the pooled mineral.

(j) Should this Agreement terminate for any cause, the leases and other contracts affecting the lands within the unit, if not then otherwise maintained in force and effect, shall remain and may be maintained in force and effect under their respective terms and conditions in the same manner as though there had been production or operations under said lease or contract and the same had ceased on the date of the termination of this Agreement.

ALLOCATION OF PRODUCTION: 5.

For the purpose of computing the share of production of the pooled mineral to which each interest owner shall be entitled from the pooled unit, there shall be allocated to each tract committed to said unit that pro rata portion of the pooled mineral produced from the pooled unit which the number of surface acres covered by each such tract and included in the unit bears to the total number of surface acres included in said unit, and the share of production to which each interest owner is entitled shall be computed on the basis of such owner's interest in the production so allocated to each tract.

TAKING ROYALTY IN KIND: 6.

Notwithstanding anything contained herein to the contrary, the State may, at its option, upon not less than sixty (60) days notice to Lessee, require that payment of all or any royalties accruing to the State under this pooling or unitization agreement be made in kind, without deduction for the cost of producing, gathering, storing, separating, treating, dehydrating, compressing, processing, transporting and otherwise making the oil, gas and other products produced hereunder ready for sale or use.

FULL MARKET VALUE: 7.

In the event the State does not elect to take its royalty in kind, the State shall receive full market value for its royalty hereunder, such value to be determined as follows:

(a) As to royalty on oil by (1) the highest posted price, plus premium, if any, offered or paid for oil, condensate, distillate, or other liquid hydrocarbons, respectively, of a like type and gravity for the field where produced and when run, or (2) the highest market price thereof offered or paid for the field where produced and when run, or (3) gross proceeds of the sale thereof, whichever is the greater;

(b) As to royalty on gas, such value to be based on (1) the highest market price paid or offered for gas of comparable quality for the field where produced and when run, or (2) the gross price paid or offered to the producer, whichever is the greater.

(For the purposes of this Agreement "field" means the general area in which the lands covered hereby are located.)

CULBERSON COUNTY TEXAS
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8-11-15

ST.9T.9

EFFECTIVE DATE: 8.

Upon execution by the Commissioner of the General Land Office of the State of Texas this Agreement shall become effective as of May 13, 2015.

TERM: 9.

This Agreement shall remain in effect so long as the pooled mineral is being produced from said unit, or so long as all leases included in the pooled unit are maintained in force by payment of delay rentals or shut-in oil or gas well royalties, by drilling or rework, or by other means, in accordance with the terms of said leases. Nothing herein shall amend or modify Section 52.031 of the Natural Resources Code, or any of the provisions thereof, which are contained in any State lease covered by this Agreement.

SPECIAL TERMS AND CONDITIONS: 10.

Notwithstanding anything contained herein to the contrary, this Agreement is subject to the terms and conditions of the attached Addendum "A".

STATE LAND: 11.

Insofar as the royalty interest of the State of Texas in and under any State tract committed to the unit is concerned, this Agreement is entered into, made and executed by the undersigned Commissioner of the General Land Office by virtue of the authority and pursuant to the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, authorizing the same, after the prerequisites, findings and approval hereof, as provided in said Code having been duly considered, made and obtained.

DISSOLUTION: 12.

The unit covered by this Agreement may be dissolved by Lessee, his heirs, successors or assigns, by an instrument filed for record in Culberson County, Texas, and a certified copy thereof filed in the General Land Office at any time after the cessation of production on said unit or the completion of a dry hole thereon prior to production or upon such other date as may be approved by the School Land Board and mutually agreed to by the undersigned parties, their successors or assigns.

RATIFICATION/WAIVER: 13.

Nothing in this Agreement, nor the approval of this Agreement by the School Land Board, nor the execution of this Agreement by the Commissioner shall: (1) operate as a ratification or revivor of any State lease that has expired, terminated, or has been released in whole or in part or terminated under the terms of such State lease or the laws applicable thereto; (2) constitute a waiver or release of any claim for money, oil, gas or other hydrocarbons, or other thing due to the State by reason of the existence or failure of such lease; (3) constitute a waiver or release of any claim by the State that such lease is void or voidable for any reason, including, without limitation, violations of the laws of the State with respect to such lease or failure of consideration; (4) constitute a confirmation or recognition of any boundary or acreage of any tract or parcel of land in which the State has or claims an interest; or (5) constitute a ratification of, or a waiver or release of any claim by the State with respect to any violation of a statute, regulation, or any of the common laws of this State, or any breach of any contract, duty, or other obligation owed to the State.

SUBJECT TO EXPLORATION AGREEMENT: 14.

This Pooling Agreement is subject to that certain Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit effective July 18, 2014, said Unit Agreement being on file in the Archives and Records of the Texas General Land office in Mineral file M-112402.

COUNTERPARTS: 15.

This Agreement may be executed in counterparts and if so executed shall be valid, binding and have the same effect as if all the parties hereto actually joined in and executed one and the same document. For recording purposes and in the event counterparts of this Agreement are executed, the executed pages, together with the pages necessary to show acknowledgments, may be combined with the other pages of this Agreement so as to form what shall be deemed and treated as a single original instrument showing execution by all parties hereto.

IN WITNESS WHEREOF, the parties have executed this Agreement upon the respective dates indicated below.

Date Executed 6/17/15

STATE OF TEXAS

By: _____
George P. Bush, Commissioner
General Land Office

Legal _____
Content _____
Geology _____
Executive _____

ST-81-9

CULBERSON COUNTY TEXAS
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8-11-15

Date Executed _____

BHP Billiton Petroleum Properties (N.A.), LP,
formerly known as Petrohawk Properties, LP,
By: BHP Billiton Petroleum Properties (GP), LLC,
its General Partner

By: _____
Stephen L. Mahanay, Attorney-in-Fact CFA

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on June 9, 2015, by Stephen L. Mahanay, Attorney-in-Fact of BHP Billiton Petroleum Properties (N.A.), LP formerly known as Petrohawk Properties, LP, by BHP Billiton Petroleum Properties (GP), LLC, its General Partner a Texas limited liability company on behalf of said limited partnership.

LYNN LATIOLAIS
Notary Public, State of Texas
My Commission Expires
October 10, 2017

_____
Notary Public in and for the State of Texas

CERTIFICATE

I, Stephanie Crenshaw, Secretary of the School Land Board of the State of Texas, do hereby certify that at a meeting of the School Land Board duly held on the 2nd day of June, 2015, the foregoing instrument was presented to and approved by said Board under the provisions of Subchapter E, Chapter 52, of the Natural Resources Code, all of which is set forth in the Minutes of the Board of which I am custodian.

IN TESTIMONY WHEREOF, witness my hand this the 2nd day of June, 2015.

_____
Secretary of the School Land Board

51.91.9

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8-11-15

Addendum "A"

To that certain Pooling Agreement for the HSS STATE 113-23X14 UNIT

The parties hereby agree that should a conflict exist between this Addendum and the body of the agreement that this Addendum shall prevail.

The pooled unit shall consist of all of the lands herein described in the attached Exhibit "B" and depicted in the attached Exhibit "C", provided however that if actual drilling operations have not commenced on a second Unit Well on or before May 13, 2018, which is thereafter completed as a well capable of producing oil or gas in paying quantities, the pooled unit shall contract and shall thereafter consist of the stand-up approximately 321 acre half (East or West) of the pooled unit described in Exhibit "B" and depicted in Exhibit "C", containing the first Unit Well.

In the event Lessee commences actual drilling operations on a second Unit Well on or before May 13, 2018, and said second Unit Well is thereafter completed as a well capable of producing oil or gas in paying quantities, the parties hereby agree that the pooled unit shall remain in the original, unaltered size and shape described in Exhibit "B" and depicted in Exhibit "C", in accordance with paragraph 9 of the Agreement.

End of Addendum "A"

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8-11-15

ST-ST-S

Exhibit "A"

Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), LP, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas

Leases in Unit

State Lease #: MF-113603

Soil Owner: State of Texas, acting by and through its agent Roddy L. Harrison, Trustee of the Harrison Trust under Trust Indenture Dated 04/25/96, as Amended

Lease Date: 07/29/2011

Recording Info: Recorded at File No. 67198, Book 106, Page 580, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: All of Section 13, and All of Section 14, Block 113, Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

State Lease #: MF-113061A

Soil Owner: State of Texas, Acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

Lease Date: 07/20/2011

Recording Info: Recorded at File No. 67163, Book 106, Page 466, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: All of Section 10, W/2 of Section 14, All of Section 15, All of Section 16, All of Section 21, and All of Section 22, Culberson County, Texas.

Lease Type: Relinquishment Act Lands

State Lease #: MF-115984

Soil Owner: State of Texas, Acting by and through its agent, Mary Jane Barron, Individually and as Trustee of the Mary Jane Barron Revocable Living Trust u/t/a dated 07/27/92

Lease Date: 09/22/2013

Recording Info: Recorded at File No. 69553, Book 110, Page 98, Official Public Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: All of Section 13; E/2 of Section 14; W/2 of Section 23 Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

State Lease #: MF-116836

Soil Owner: State of Texas, Acting by and through its agent, Yellow Top Ranch, Inc.

True and Correct copy of Original filed in Culberson County Clerks Office
8-11-15

ST-ST-9

Lease Date: 09/22/2013

Recording Info: Recorded at File No. 70762, Official Oil and Gas Records, Culberson County, Texas

Royalty: 25%

Description: Block 113: W/2 of Section 23; W/2 of Section 23 Public School Land Survey, Culberson County, Texas

Lease Type: Relinquishment Act Lands

True and Correct copy of Original filed in Culberson County Clerks Office
8-11-15

Exhibit "B"

Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), LP, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas
Description of Lands included in the Pooling Agreement

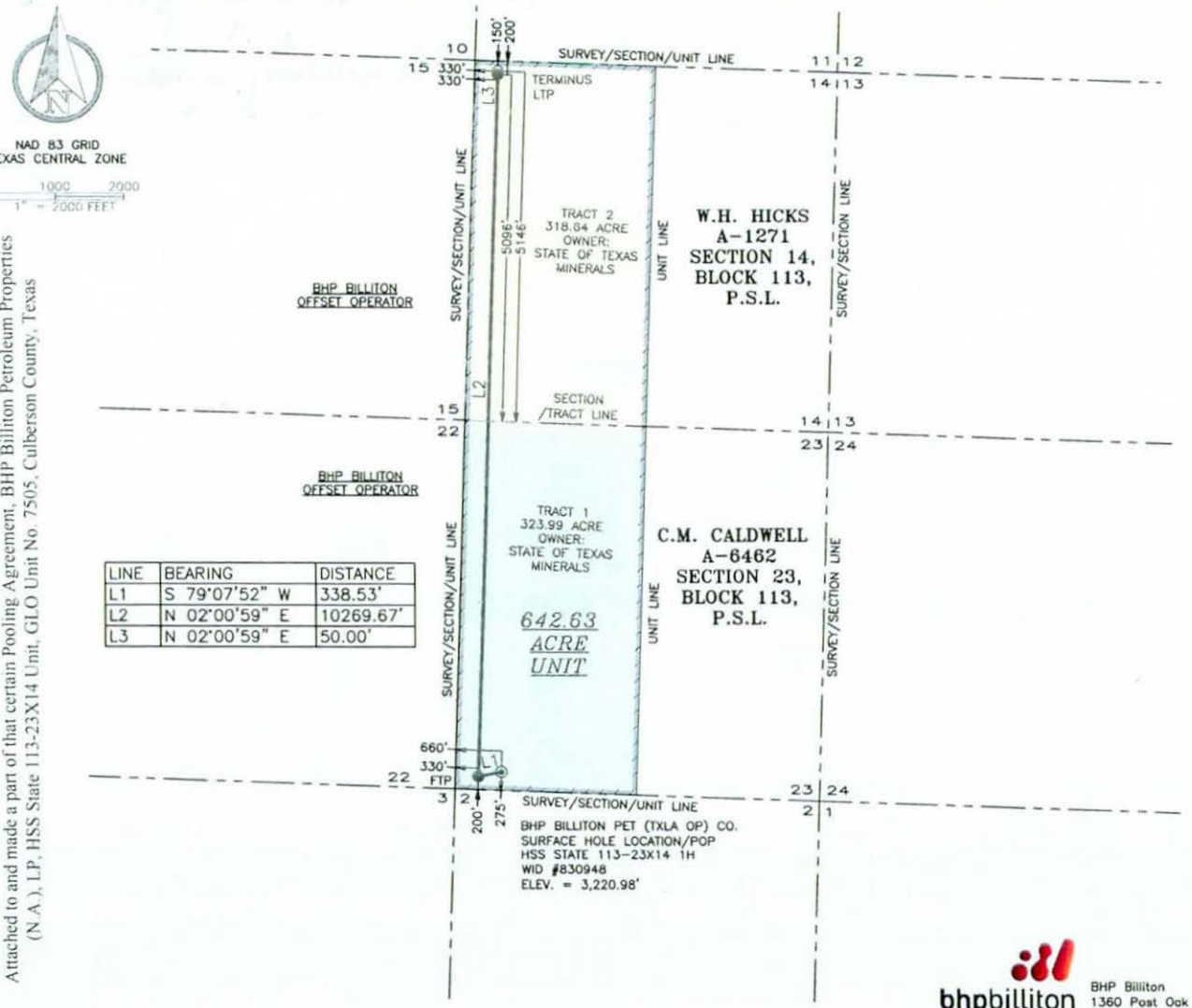
Tract 1:
The West Half of Section 14, BLK 113, Public School Land Survey, Culberson County, Texas.

Tract 2:
The West Half of Section 23, BLK 113, Public School Land Survey, Culberson County Texas.

True and Correct copy of Original filed in Culberson County Clerks Office
8-11-15

ST-ST-8

True and Correct copy of Original filed in Culberson County Clerks Office
8-11-15



LINE	BEARING	DISTANCE
L1	S 79°07'52" W	338.53'
L2	N 02°00'59" E	10269.67'
L3	N 02°00'59" E	50.00'

Exhibit "C"
Attached to and made a part of that certain Pooling Agreement, BHP Billiton Petroleum Properties (N.A.), LP, HSS State 113-23X14 Unit, GLO Unit No. 7505, Culberson County, Texas

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GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 27 "TEXAS CENTRAL ZONE" (EPSG 32039), AND BASED ON "LINDLEY" NGS MONUMENT (Y = 765,739.62, X = 920,110.41)
2. VERTICAL DATUM IS NAVD 88 (EPSG 5103)
3. COMBINED SCALE FACTOR = 0.999806055
4. GRID NORTH CONVERGENCE ANGLE IS -1°57'25.16619"
5. LATITUDE AND LONGITUDE ARE NAD 27 (EPSG 4267) AS SHOWN
6. AREA, DISTANCES, AND COORDINATES ARE "GRID"
7. UNITS ARE UNITED STATES SURVEY FOOT.
8. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

STATE OF TEXAS · REGISTERED · ROBERT GLEN MALOY · 6028 · PROFESSIONAL LAND SURVEYOR

REVISION	DATE	BY	DETAILS
A	02/13/15	RP	MAKE PRELIMINARY PLAT
B	03/10/15	GG	ADD TRACTS AND OFFSETS
C	04/09/15	GG	CHANGED TO UNIT
D	05/08/15	JK	REV. UNIT AND LATERAL

PLAT OF:

A PROPOSED WELL LOCATION FOR:

BHP BILLITON PET (TXLA OP) CO.

HSS STATE 113-23X14 1H

WID# 830948

SITUATED IN THE C.M. CALDWELL SURVEY, ABSTRACT NO. 6462, SECTION 23, BLOCK 113, AND THE W.H. HICKS SURVEY, ABSTRACT NO. 1271, SECTION 14, BLOCK 113, IN THE PUBLIC SCHOOL LANDS, LOCATED APPROX. 15.7 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

bhpbilliton
BHP Billiton
1360 Post Oak Blvd. #150
Houston, Texas 77056

FRANK
SURVEYING COMPANY INC
550 Bailey Ave., 205 · Fort Worth, TX 76107
Ph: 817.349.9800 · Fax: 979.732.5271
TBPLS Firm No. 10193887
www.franksurveying.com
LAND SURVEYING/ENERGY/GIS SERVICES

DATE:	05/08/15
DRAWN BY:	RP
CHECKED BY:	JK
FIELD CREW:	RE/MR
PROJECT NO:	2014121455
SCALE:	1" = 2000'
SHEET:	1 OF 2
REVISION:	0

(82)

File No. M-113061

Recorded HSS Study 113-23X14 Unit

County

Date Filed: 8/10/15

George P. Bush, Commissioner

By

CERTIFIED TRUE AND CORRECT COPY CERTIFICATE
STATE OF TEXAS
COUNTY OF CULBERSON

The above and foregoing is a full, true and correct photographic copy of the original record now in my lawful custody and possession, as the same is filed/recorded in the OPR Records of my office, found in VOL. 2, PAGE 64.

I hereby certified on 8 11 2015

LINDA McDONALD, COUNTY & DISTRICT CLERK
CULBERSON COUNTY, TEXAS
BY Linda C. Lucero DEPUTY

After recording, please return to:
BHP Billiton
ATTN: Lynn Latiolais
1360 Post Oak, Suite 150
Houston, TX 77056

8.19.15

Daryl Morgan - RE: HSS State 113-23X14 Pooling Agmt: Corrected Plat

From: "Aldrich, Guy" <Guy.Aldrich@bhpbilliton.com>
To: Daryl Morgan <Daryl.Morgan@GLO.TEXAS.GOV>
Date: 10/1/2015 10:06 AM
Subject: RE: HSS State 113-23X14 Pooling Agmt: Corrected Plat

Thanks.

bhpbilliton
resourcing the future

Guy F. Aldrich
Transaction Manager

BHP Billiton Petroleum
1360 Post Oak Blvd.
Houston, Texas 77056
Direct: 713.968.2741
Cell: 832.415.6705

From: Daryl Morgan [Daryl.Morgan@GLO.TEXAS.GOV]
Sent: Thursday, October 01, 2015 9:47 AM
To: Aldrich, Guy
Subject: HSS State 113-23X14 Pooling Agmt: Corrected Plat

Guy,

Again, I don't see that as any sort of fatal flaw in the document. The key is getting the acreage amount and legal description correct. The tract numbering doesn't really matter. If you want to go ahead and do a correction that works for me.

Daryl

J. Daryl Morgan, CPL
Texas General Land Office
Energy Resources
(512) 305-9106
daryl.morgan@glo.texas.gov

>>> "Aldrich, Guy" <Guy.Aldrich@bhpbilliton.com> 9/29/2015 8:02 PM >>>
Robert:

See attached. Please revised Exhibit "C" to reverse the Tract Numbers (Tract 1 being the W/2 of Section 14; Tract 2 being the W/2 of Section 23.

Daryl: Do you want BHP to prepare the Correction of Pooling Agreement for the GLO's execution?

Thanks.

bhpbilliton
resourcing the future

Guy F. Aldrich
Transaction Manager

BHP Billiton Petroleum
1360 Post Oak Blvd.
Houston, Texas 77056
Direct: 713.968.2741
Cell: 832.415.6705

From: Frey, Victoria
Sent: Tuesday, September 29, 2015 11:23 AM
To: Aldrich, Guy
Subject: HSS State 113-23X14 Pooling Agmt: Corrected Plat

Hi Guy-

Pursuant to Title Req. 4 of Charles Anderson's Title Opinion, can we please record a corrected Plat for the subject line well? Exhibit "C" does not jive with the descriptions on Exhibit "B" and should be corrected.

Thanks so much,

Victoria Frey
Division Order Representative- Permian PU
Land Administration, Petroleum
BHP Billiton, 1300 Post Oak Blvd, Room 1038
(P): 713-961-8311 (F): 1-888-484-3189
E: victoria.frey@bhpbilliton.com

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This message and any attached files may contain information that is confidential and/or subject of legal privilege intended only for use by the intended recipient. If you are not the intended recipient or the person responsible for delivering the message to the intended recipient, be advised that you have received this message in error and that any dissemination, copying or use of this message or attachment is strictly forbidden, as is the disclosure of the information therein. If you have received this message in error please notify the sender immediately and delete the message.

(29)

File No. M-113061

County

E-Mail with BTP

Date Filed: 10/1/15

George P. Bush, Commissioner

By

Information for processing a Non Unit Multiple Lease Transaction (NUML)

NUML No. 8028

GENERAL INFORMATION

Name of NUML: Sec 16 Blk113 PSL Culberson

Name of Operator: BHP Billiton County: Culberson

Operator Contact Person: Cristen Steele Phone: 713-968-2610

cristen.steele@bhpbilliton.com

ALLOCATION OF REVENUE

Lease Type	Lease No.	Gross Acreage	Lease Net Acres	Lease Rylty Decimal	RRAC Participation Factor	Lease Decimal in NUML
RAL	MF113061	640	160.000000	0.12500000	0.25000000	0.03125000
RAL	MF113596	640	480.000000	0.12500000	0.75000000	0.09375000
RAL						
RAL						
Totals:			640.000000		1.00000000	0.12500000

Effective Date: 1st Production

State Net Royalty Revenue

Comments:

- This is a set up to pay on a well that produced at test, but is no longer a producing property.

Attach a plat showing the lease numbers in this geographic area.

Lease Types: Relinquishment Act Land (RAL), State Fee (SF), Free Royalty (FR), Unleased Riverbed (UR), Highway Right of Way (HROW), Unleased Highway (UH), Criminal Justice (TDCJ), Parks & Wildlife (TPW), Mineral Production Allocation (MPAA), Dept. of Aging (DADS), School for the Blind (SBVI), Stephen F. Austin (SFA), TX A&M (A&M).

NUML Well(s):

API #	RRC ID #	Well Name
4210932565	08-271770	Horseshoe Springs State 113-16 #2V

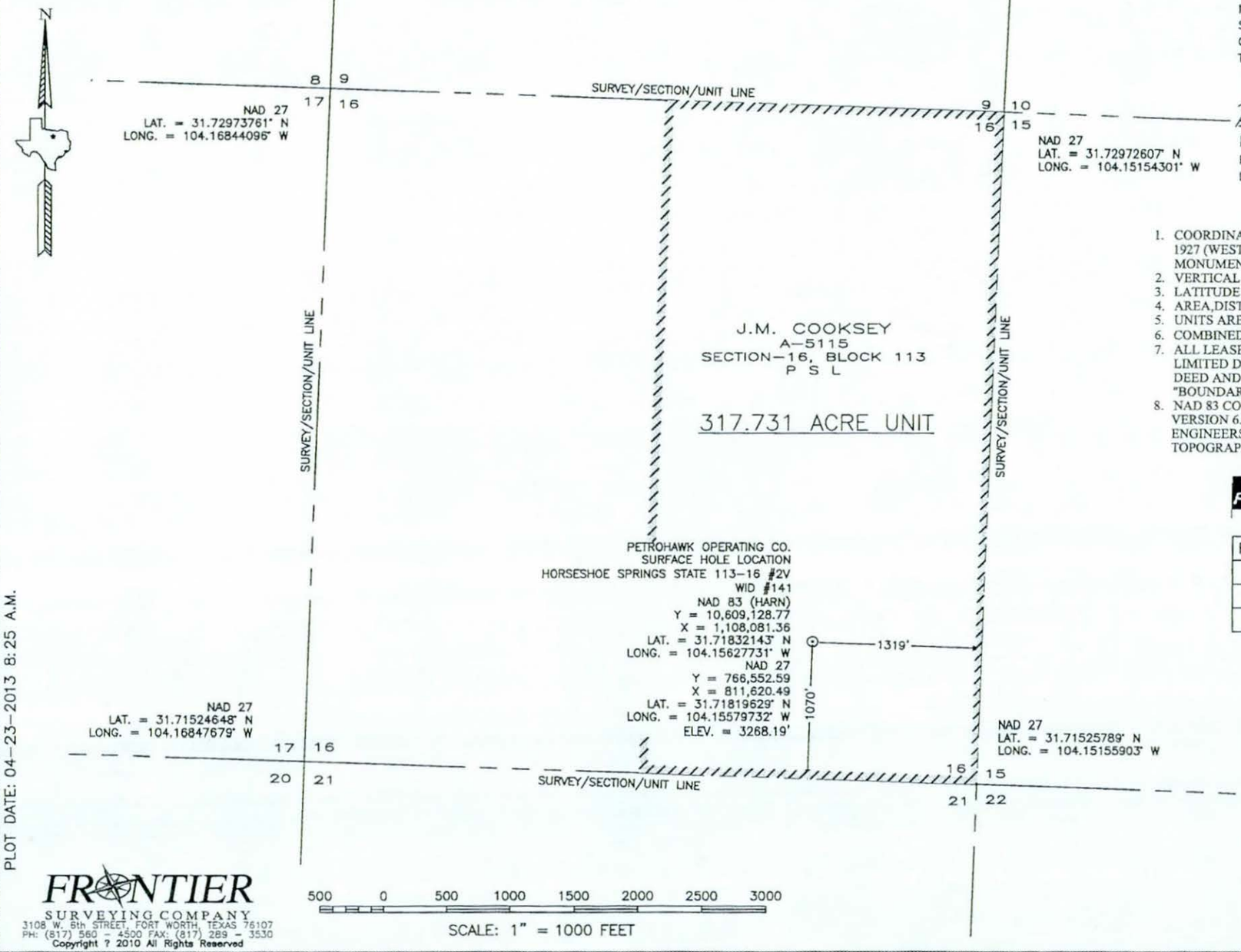
Prepared by: SSD Alamo updated by: SSD RAM approval by: JW

GIS updated by: MC WI updated by: SSD

MF 113061
MF 113596

API 109-32565

PERMIT PLAT WID #141 JOB #: 1201108



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

STATE OF TEXAS · REGISTERED · ROBERT GLEN MALOY 6028 PROFESSIONAL LAND SURVEYOR

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1927 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 768,451.91, X = 792,335.72)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 83 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

PETROHAWK

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

REV.	DATE	BY	REVISIONS MADE
1	02/26/13	BB	MAKE PRELIMINARY PLAT
2	03/01/13	JK	MAKE REVISIONS

PLAT OF:

A PROPOSED WELL LOCATION FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #2V

SITUATED IN SECTION 16, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5115, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 04/23/13		File Name: 1201108.DWG	
Scale: 1" = 1000'		Surveyed by:	JG/MR
Drawn by:	BB	Checked by:	RM

PLOT DATE: 04-23-2013 8:25 A.M.

FRONTIER SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530

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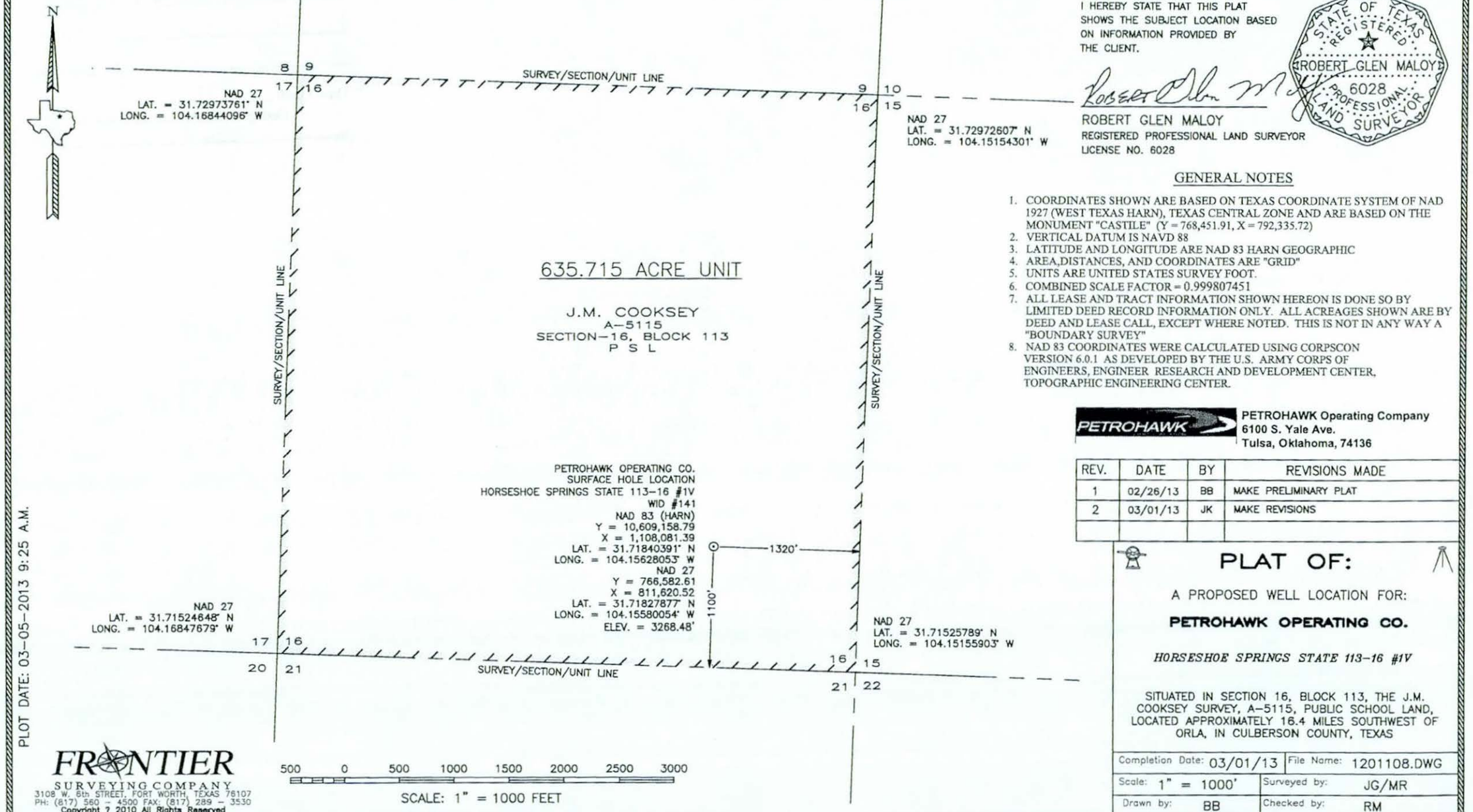
PERMIT PLAT WID #141 JOB #: 1201108



I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

STATE OF TEXAS · REGISTERED · ROBERT GLEN MALOY 6028 PROFESSIONAL LAND SURVEYOR

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 1927 (WEST TEXAS HARN), TEXAS CENTRAL ZONE AND ARE BASED ON THE MONUMENT "CASTILE" (Y = 768,451.91, X = 792,335.72)
2. VERTICAL DATUM IS NAVD 88
3. LATITUDE AND LONGITUDE ARE NAD 83 HARN GEOGRAPHIC
4. AREA,DISTANCES, AND COORDINATES ARE "GRID"
5. UNITS ARE UNITED STATES SURVEY FOOT.
6. COMBINED SCALE FACTOR = 0.999807451
7. ALL LEASE AND TRACT INFORMATION SHOWN HEREON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY"
8. NAD 83 COORDINATES WERE CALCULATED USING CORPSCON VERSION 6.0.1 AS DEVELOPED BY THE U.S. ARMY CORPS OF ENGINEERS, ENGINEER RESEARCH AND DEVELOPMENT CENTER, TOPOGRAPHIC ENGINEERING CENTER.

PETROHAWK

PETROHAWK Operating Company
6100 S. Yale Ave.
Tulsa, Oklahoma, 74136

REV.	DATE	BY	REVISIONS MADE
1	02/26/13	BB	MAKE PRELIMINARY PLAT
2	03/01/13	JK	MAKE REVISIONS

PLAT OF:

A PROPOSED WELL LOCATION FOR:

PETROHAWK OPERATING CO.

HORSESHOE SPRINGS STATE 113-16 #1V

SITUATED IN SECTION 16, BLOCK 113, THE J.M. COOKSEY SURVEY, A-5115, PUBLIC SCHOOL LAND, LOCATED APPROXIMATELY 16.4 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

Completion Date: 03/01/13		File Name: 1201108.DWG	
Scale: 1" = 1000'		Surveyed by:	JG/MR
Drawn by:	BB	Checked by:	RM

PLOT DATE: 03-05-2013 9:25 A.M.

FRONTIER
SURVEYING COMPANY
3108 W. 6th STREET, FORT WORTH, TEXAS 76107
PH: (817) 560 - 4500 FAX: (817) 289 - 3530
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File No. MF113061

NUML 8028 County

Date Filed: 1/15/16

George P. Bush, Commissioner

By SSD

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78701-2967

Form G-1

Status: Submitted
Date: 12/22/2015
Tracking No.: 147291

GAS WELL BACK PRESSURE TEST, COMPLETION OR RECOMPLETION REPORT, AND LOG

OPERATOR INFORMATION

Operator Name: BHP BILLITON PET(TXLA OP) CO **Operator No.:** 068596
Operator Address: 1360 POST OAK BLVD STE 150 HOUSTON, TX 77056-0000

WELL INFORMATION

API No.: 42-109-32850 **County:** CULBERSON
Well No.: 1H **RRC District No.:** 08
Lease Name: HSS STATE 113-23X14 **Field Name:** PHANTOM (WOLFCAMP)
RRC Gas ID No.: **Field No.:** 71052900
Location: Section: 23, Block: 113, Survey: PSL/CALDWELL, C M, Abstract: 6462

Latitude: 31.70125 **Longitude:** -104.13240
This well is located 15.7 **miles in a** SW **direction from** ORLA, **which is the nearest town in the county.**

FILING INFORMATION

Purpose of filing: Initial Potential
Type of completion: New Well
Well Type: Producing **Completion or Recompletion Date:** 09/13/2015

Type of Permit	Date	Permit No.
Permit to Drill, Plug Back, or Deepen	05/19/2015	805458
Rule 37 Exception		0296319
Fluid Injection Permit		
O&G Waste Disposal Permit		
Other:		

COMPLETION INFORMATION

Spud date: 05/15/2015 **Date of first production after rig released:** 09/13/2015
Date plug back, deepening, recompletion, or drilling operation commenced: 05/15/2015 **Date plug back, deepening, recompletion, or drilling operation ended:** 06/16/2015
Number of producing wells on this lease in this field (reservoir) including this well: 1 **Distance to nearest well in lease & reservoir (ft.):** 0.0
Total number of acres in lease: 642.63 **Elevation (ft.):** 3221 GL
Total depth TVD (ft.): 8933 **Total depth MD (ft.):** 19050
Plug back depth TVD (ft.): 8933 **Plug back depth MD (ft.):** 18890
Was directional survey made other than inclination (Form W-12)? Yes **Rotation time within surface casing (hours):** 185.0
Is Cementing Affidavit (Form W-15) attached? Yes
Recompletion or reclass? No **Multiple completion?** No
Type(s) of electric or other log(s) run: Gamma Ray (MWD)
Electric Log Other Description:
Location of well, relative to nearest lease boundaries of lease on which this well is located: 660.0 **Feet from the** West **Line and** 275.0 **Feet from the** South **Line of the** HSS STATE 113-23X14 **Lease.** **Off Lease:** No

FORMER FIELD (WITH RESERVOIR) & GAS ID OR OIL LEASE NO.

Field & Reservoir	Gas ID or Oil Lease No.	Well No.	Prior Service Type

91-121

G1: N/A

PACKET: N/A

FOR NEW DRILL OR RE-ENTRY, SURFACE CASING DEPTH DETERMINED BY:

GAU Groundwater Protection Determination	**Depth (ft.):** 300.0	**Date:** 05/06/2015
SWR 13 Exception	**Depth (ft.):**	

GAS MEASUREMENT DATA

Date of test: 10/13/2015

Gas production during test (MCF): 9592

Was the well preflowed for 48 hours? Yes

Gas measurement method(s): Orifice Meter, Flange Taps

Run No.	Line size	Orif. or Choke Size (in.)	24 hr. Coeff. Orif. Or Choke (in.)	Static Pm or Choke (in.)	Diff (hw)	Flow Temp (°F)	Temp. (Ftf)	Gravity (Fg)	Compress (Fpv)	Volume (MCF/day)
1	3.068	1.625	17526.85	257.0	132.6	109.0	0.9559	0.8999	1.027	3331.0

FIELD DATA AND PRESSURE CALCULATIONS

Gravity (dry gas): 0.741

Gas-Liquid Hydro Ratio (CF/Bbl): 4192

Avg. shut in temp. (°F): 129.0

Gravity (liquid hydrocarbons) (Deg. API): 53.1

Gravity (mixture): Gmix= 1.247

Bottom hole temp. and depth: 197.0 °F@ 8933.0 FT

Run No.	Time of Run (Min.)	Choke Size (in.)	Wellhead Pressure (PSIA)	Wellhead Flow Temp (°F)
SHUT-IN	1440	48/64	1500	61.0
1	4320	48/64	257	109.0

CASING RECORD

Row	Type of Casing	Casing Size (in.)	Hole Size (in.)	Setting Depth (ft.)	Multi - Stage Tool Depth (ft.)	Multi - Stage Shoe Depth (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By
1	Surface	11 3/4	14 3/4	450			C	798	2458.0	SURF	Circulated to Surface
2	Intermediate	9	10 5/8	3472			TXI; C	388	849.8	200	Calculation
3	Intermediate	7 5/8	8 3/4	8837			LITE; C	400	810.9	2000	Calculation
4	Tapered Production	5 1/2	6 3/4	19028			TXI	1817	2403.4	3123	Calculation
5	Tapered Production	4 1/2	6 3/4	19028			TXI	1817	2403.4	3123	Calculation

LINER RECORD

Row	Liner Size (in.)	Hole Size (in.)	Liner Top (ft.)	Liner Bottom (ft.)	Cement Class	Cement Amount (sacks)	Slurry Volume (cu. ft.)	Top of Cement (ft.)	TOC Determined By

N/A

TUBING RECORD

Row	Size (in.)	Depth Size (ft.)	Packer Depth (ft.)/Type
1	2	8327	8301 / BRANTON BT1-XW

PRODUCING/INJECTION/DISPOSAL INTERVAL

Row	Open hole?	From (ft.)	To (ft.)
1	No	L2 9157	18843

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC.

Was hydraulic fracturing treatment performed? Yes

Is well equipped with a downhole actuation sleeve? Yes

If yes, actuation pressure (PSIG): 9000.0

Production casing test pressure (PSIG) prior to hydraulic fracturing treatment: 12000

Actual maximum pressure (PSIG) during hydraulic fracturing: 10656

Has the hydraulic fracturing fluid disclosure been reported to FracFocus disclosure registry (SWR29)? Yes

Row	Type of Operation	Amount and Kind of Material Used	Depth Interval (ft.)	
1	Fracture	30 STAGES: 11,921,100# PROPPANT; 11,407,183 GALLONS FLUID	9157.0	18843.0
2	Cement Squeeze	SQUEEZED 14 3/4 HOLE WITH 1058 SX CEMENT	83.0	450.0

FORMATION RECORD

Formations	Encountered	Depth TVD (ft.)	Depth MD (ft.)	Is formation isolated?	Remarks
RUSTLER	Yes	300.0	300.0	Yes	PER GAU LETTER
LAMAR LM	Yes	2107.0	2107.0	Yes	ESTIMATED
BELL CANYON	Yes	2146.0	2146.0	Yes	ESTIMATED
FORD-DELAWARE	Yes	2500.0	2500.0	Yes	ESTIMATED
DELAWARE	Yes	2600.0	2600.0	Yes	ESTIMATED
CHERRY CANYON	Yes	2967.0	2967.0	Yes	ESTIMATED
BRUSHY CANYON	Yes	4197.0	4201.0	Yes	ESTIMATED
BONE SPRINGS	Yes	5732.0	5742.0	Yes	ESTIMATED
MID AVALON LIMESTONE	Yes	6304.0	6315.0	Yes	ESTIMATED
BASE AVALON SHALE	Yes	6720.0	6733.0	Yes	ESTIMATED
2ND BONE SPRING	Yes	7054.0	7068.0	Yes	ESTIMATED
3RD BONE SPRING	Yes	8383.0	8400.0	Yes	ESTIMATED
MISSISSIPPIAN	Yes	8900.0	8900.0	Yes	ESTIMATED; NOT ENCOUNTERED
WOLFCAMP	Yes	8699.0	8741.0	Yes	TARGET FORMATION
ATOKA	No			No	NOT DEEP ENOUGH
MORROW	No			No	NOT DEEP ENOUGH
STRAWN	No			No	NOT DEEP ENOUGH
SILURIAN	No			No	NOT DEEP ENOUGH

Do the producing interval of this well produce H2S with a concentration in excess of 100 ppm (SWR 36)? No

Is the completion being downhole commingled (SWR 10)? No

REMARKS

INITIAL G-1. KOP AT 8303'. CROSSOVER AT 8903'. NO OTHER LOGS RAN.

RRC REMARKS

PUBLIC COMMENTS:

CASING RECORD :

TUBING RECORD:

PRODUCING/INJECTION/DISPOSAL INTERVAL :

ACID, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUG, RETAINER, ETC. :

GAS MEASUREMENT DATE REMARK:

OPERATOR'S CERTIFICATION

Printed Name: Diann Flowers	**Title:** Sr. Regulatory Specialist
Telephone No.: (713) 983-2508	**Date Certified:** 12/22/2015

Groundwater
Advisory Unit

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Date: May 6, 2015

GAU File No.: 1271

API Number: 10900000

Attention: LILLIAN GARCIA

RRC Lease No.: 000000

SC_068596_10900000_000000_1271.pdf

BHP BILLITON PET(TXLA OP) CO
1360 POST OAK BLVD
STE 150
HOUSTON TX 77056

P-5# 068596

--Measured--
660 ft FWL
275 ft FSL

MRL: SURVEY

Digital Map Location:
X-coord/Long: -104.132401
Y-coord/Lat: 31.701253
Datum: 27 Zone:

County: CULBERSON

Lease & Well No.: HSS STATE 113-23X14 #1H

Purpose: ND

Location: SUR-CALDWELL, C M,A-6462,BLK-113,SEC-23,--[TD=14000],[RRC 08],

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the RUSTLER, which is estimated to occur at a depth of 300 feet, must be protected.

This recommendation applies to this well only and should not be construed as establishing an area-wide depth for the protection of usable-quality ground water.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. **This recommendation is intended for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).**

If you have any questions, please contact us at 512-463-2741 gau@rrc.state.tx.us or by mail.

Sincerely,

George Dunfield

Digitally signed by George Dunfield
DN: cn=US, st=TEXAS, l=Austin, o=Railroad Commission of Texas, cn=George Dunfield, email=george.dunfield@rrc.state.tx.us
Date: 2015.05.06 14:39:00 -05'00'

George Dunfield, P.G.

Geologist, Groundwater Advisory Unit
Oil & Gas Division

GEOLOGIST SEAL

STATE OF TEXAS
George Dunfield
Geology
413
LICENSED
PROFESSIONAL GEOSCIENTIST

The seal appearing on this document was authorized by George Dunfield on 5/6/2015
Note: Alteration of this electronic document will invalidate the digital signature.

31-12-1

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

GAS WELL CLASSIFICATION REPORT

Form G-5

Tracking No.: 147291

This facsimile G-5 was generated electronically from data submitted to the RRC.

1. OPERATOR NAME (Exactly as shown on Form P5 Organization Report)	3. RRC DISTRICT NO.	4. OIL LEASE NO OR GAS WELL ID NO.
BHP BILLITON PET(TXLA OP) CO	08	
2. MAILING ADDRESS 1360 POST OAK BLVD STE 150 HOUSTON, TX 77056	5. WELL NO. 1H	6. API NO. 42- 109-32850
	7. COUNTY OF WELL SITE CULBERSON	

8. FIELD NAME (as per RRC Records)	9. LEASE NAME
PHANTOM (WOLFCAMP)	HSS STATE 113-23X14
10. LOCATION (Section, Block and Survey)	11. PIPELINE CONNECTION OR USE OF GAS
23 , 113 , PSL/CALDWELL, C M , A-6462	BHP BILLITON PETROLEUM (TX GATH)

PRODUCTION TEST AT RATE ELECTED BY OPERATOR
(data on 24-hour basis)

A. Date of Test	10/13/2015	
B. Gas Volume	3331.0	(Mcf)
C. Oil or Condensate Volume	794.6	(Bbl)
D. Water Volume	1375.0	(Bbl)
E. Gas/Liquid Hydrocarbon Ratio	4192	(Cf/Bbl)
F. Flowing Tubing Pressure	257	(psia)
G. Choke Size	48/64	(in.)
H. Casing Pressure	992.0	(psia)
I. Shut-in Wellhead Pressure--Tubing	1500	(psia)
J. Separator Operating Pressure	425.0	(psia)
K. Color of Stock Tank Liquid	Light Straw	
L. Gravity of Separator Liquid	53.1	°API
M. Gravity of Stock Tank Liquid		°API
N. Specific Gravity of the Gas (Air = 1)	0.741	

A.S.T.M. DISTILLATION OF LIQUID SAMPLE. Distillation test is required for gas wells ONLY if the producing gas-liquid hydrocarbon ratio is less than 100,000 CF/barrel.

Date Liquid Sample Obtained: 10/13/2015

Where Obtained: [X] Separator [ ] Stock Tank

% Over	Temp. (deg. F)	% Over	Temp. (deg. F)
Initial Boiling Temp.	90.0	60	445.0
10	187.0	70	525.0
20	231.0	80	622.0
30	269.0	90	704.0
40	312.0	95	705.0
50	369.0	End Point	705.0

Total Recovery	92.5	percent
Residue	4.8	percent
Loss	2.7	percent

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete to the best of my knowledge.

12/22/2015
DATE

NAME (Type or Print): Diann Flowers

SIGNATURE

TITLE: Sr. Regulatory Specialist

(713) 983-2508
CONTACT PERSON PHONE NUMBER

RRC USE ONLY

91.12.1

DAVID PORTER, CHAIRMAN
CHRISTI CRADDICK, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
LESLIE SAVAGE, P.G.
ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

December 22, 2015

BHP BILLITON PET(TXLA OP) CO
ATTN: REGULATORY DEPARTMENT
1360 POST OAK BLVD STE 150
HOUSTON TX 77056

RE: HSS STATE 113-23X14 LEASE
WELL NO. 1H
PHANTOM (WOLFCAMP) FIELD
CULBERSON COUNTY, DISTRICT 08, TEXAS
GAS COMPLETION, ONLINE PACKET NO. 147291
DRILLING PERMIT NO. 805458
API NO. 109-32850

Dear Operator:

The Commission has granted a permanent gas well classification for the above referenced well based on the wellstream compositional analysis, which indicated the mole percent Heptanes Plus of the wellstream to be 9.469%. The permanent classification only applies to the take points that were open when the compositional analysis was run. They are 9157' to 18843'. Any change in take points to the completion will nullify the permanent gas well classification. No periodic shut-in bottom hole pressure reports will need to be submitted on this well to maintain the gas well classification. The production audit section will be directed to suppress any reclassification letters to you in the future. If you have any questions please contact the undersigned at phone (512) 463-6209 and/or email karen.cassidy@rrc.texas.gov.

Sincerely,

Karen Cassidy

Karen Cassidy
Eng. Specialist
Technical Permitting

91.12.1

FESCO, Ltd.
Petroleum Engineers

CORPORATE HEADQUARTERS: 1000 FESCO AVE. • ALICE, TEXAS 78332-7318 • (361) 661-7000
ALICE LABORATORY: (361) 661-7015 • FAX (361) 661-7019

ALICE.....(361) 664-3479
ALICE HYDRAULICS (361) 661-1538
BEAUMONT.....(409) 842-3000
BRIDGEPORT, WV....(304) 592-3366
BRYAN.....(979) 775-1825
CANADIAN.....(806) 323-5050
CORPUS CHRISTI.....
PROD. TEST (361) 882-4124
WIRELINE (361) 452-1631
EDINBURG.....(956) 383-8378
EL CAMPO.....(979) 543-9451
HOUSTON SALES (281) 565-1115
KILGORE.....(903) 984-4814
LAFAYETTE, LA.....(337) 896-3838
LAREDO.....(956) 724-7501
LIBERAL, KS.....(580) 778-3384
LUFKIN.....(936) 632-7036
MANSFIELD, LA.....(318) 872-0734
ODESSA.....(432) 332-3211
OZONA.....(325) 392-3773
PECOS.....(432) 445-1993
REFUGIO.....(361) 526-4644
VICTORIA.....(361) 575-7533
WOODWARD, OK..(580) 256-0848

October 26, 2015

Ms. Diann Flowers
BHP Billiton - Petroleum (TXLA OP) Co.
3800 East 42nd Street, Suite 105
Odessa, Texas 79762

Re:	Well:	HSS State 113-23X14 1H
	Field:	Phantom (Wolfcamp)
	Location:	Culberson County, Texas
	Formation:	Wolfcamp
	Lateral:	9157 - 18843 ft
	Test Type:	Mathematically Recombined C_{7+} Wellstream Analysis

Dear Ms. Diann Flowers:

As instructed, FESCO collected gas and hydrocarbon (HC) liquid samples from the first-stage lease separator on October 13, 2015 then sent the samples to its laboratory in Alice, Texas for C_{7+} compositional analysis. FESCO then determined the corresponding wellstream fluid composition by mathematically recombining the separator gas and separator HC liquid compositions at the producing GOR of 4539 Scf/Sep Bbl (5198 Scf/STB). The attached report contains the separator gas, separator liquid and wellstream fluid compositions through C_{7+}. The operator provided the GOR value used to determine the wellstream composition. The resulting molar volume of the C_{7+} wellstream pseudo-component was 9.469 mole percent.

Thank you for this opportunity to serve BHP Billiton - Petroleum (TXLA OP) Co. Please call me if you have any questions or concerns regarding this report.

Sincerely,

FESCO, Ltd.

Conan Pierce
Corporate Engineer
Alice, Texas
Phone: 361-661-7000 Ext. 125
Email: Conan.Pierce@FescoInc.com

91.12.1

October 26, 2015

FESCO, Ltd.
1100 FESCO Avenue - Alice, Texas 78332

For: BHP Billiton - Petroleum (TXLA OP) Co.
3800 East 42nd Street, Suite 105
Odessa, Texas 79762

COMPOSITIONAL ANALYSIS OF THE SEPARATOR GAS, HC LIQUID, AND MATHEMATICALLY RECOMBINED WELLSTREAM THROUGH C_{7+}

Well Information For Sample Date of : 10/13/15

Well Name:	HSS State 113-23X14 1H	Formation:	Wolfcamp	
Field:	Phantom (Wolfcamp)	Lateral:	9157 - 18843	ft
County:	Culberson, Texas	FWHP:	860	psig

Separator Effluents at: 425 psig & 111°F
Production Data Furnished by: Operator

Stock Tank GOR:	5198	SCF / STB	Separator Gas Rate:	3332	MCF/Day
Separator GOR:	4539	SCF / Sep Bbl	Separator HC Liquid Rate:	734.0	Bbls/Day
			Stock Tank HC Liquid Rate:	641.0	Bbls/Day
Stock Tank HC SG:	53.1	°API @ 60 °F	Water Rate:	1375.0	Bbls/Day
Stock Tank HC Color:	Light Straw		Sep HC Liquid Recovery Factor:	87.324	%

	GAS		HC LIQUID		WELLSTREAM	
Component	**Mole%**	**GPM**	**Mole %**	**Liquid Volume %**	**Mole %**	**GPM**
Hydrogen Sulfide**	< 0.001		-----	----	< 0.001	
Nitrogen	0.658		0.028	0.007	0.547	
Carbon Dioxide	0.092		0.018	0.007	0.079	
Methane	78.103		8.945	3.493	65.920	
Ethane	11.857	3.153	6.807	4.195	10.967	2.916
Propane	5.326	1.459	8.977	5.699	5.969	1.635
Iso-butane	0.726	0.236	2.445	1.844	1.029	0.335
N-butane	1.623	0.509	7.219	5.245	2.609	0.818
2-2 Dimethylpropane	0.000	0.000	0.103	0.091	0.018	0.007
Iso-pentane	0.368	0.134	3.122	2.631	0.853	0.310
N-pentane	0.436	0.157	4.466	3.731	1.146	0.413
Hexanes	0.398	0.163	6.049	5.732	1.393	0.570
Heptanes Plus	0.413	0.200	51.821	67.325	9.469	5.282
TOTALS	100.000	6.011	100.000	100.000	100.000	12.286

HEPTANES PLUS ($C7_+$) FRACTION CHARACTERISTICS

	GAS	HC LIQUID	WELLSTREAM
Molecular Weight	107.2 lb/lb-mol	143.2 lb/lb-mol	141.9 lb/lb-mol
Specific Gravity	3.7155 (Air=1)	0.8050 (Water=1)	0.8016 (Water=1)
Vapor Volume	20.663 Scf/Gal	17.840 Scf/Gal	17.928 Scf/Gal

TOTAL SAMPLE CHARACTERISTICS

	GAS		HC LIQUID	WELLSTREAM
Molecular Weight	21.4 lb/lb-mol		98.1 lb/lb-mol	34.9 lb/lb-mol
Specific Gravity	0.7417 (Air=1)		0.7160 (Water=1)	1.2097 (Air=1)
Vapor Volume	166.375 Scf/Gal		23.176 Scf/Gal	81.393 Scf/Gal
Gross Heating Value	Dry BTU/Scf	Sat BTU/Scf		
	1286	1264		

**Hydrogen Sulfide tested on location by: Stained Tube Method (GPA 2377)
<0.013 Gr/100 CF, <0.2 PPMV or <0.001 Mol %

Base Conditions: 14.650 psia and 60 °F

Job No.54527

Certified: FESCO, Ltd. - Alice, Texas

Conan Pierce 361-661-7015

91.12.1

Tracking No.: 147291

OPERATOR NAME AND ADDRESS Including city, state and zip

BHP BILLITON PET(TXLA OP) CO

1360 POST OAK BLVD STE 150
HOUSTON, TX 77056

GAS WELL STATUS REPORT

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
P.O. Box 12967
Austin, Texas 78711-2967

This facsimile G-10 was generated electronically from data submitted to the RRC.

Reason for Filing: ☐ Survey ☐ Retest ☒ Initial Test ☐ Correction

Operator P-5 Organization No.: 068596

RRC Dist. No.: 08

G-10

Test Period:

Due Date:

Effective Date:

FIELD NAME / * LEASE NAME	RRC IDENT NO. / WELL NO.	DATE TESTED MO/DAY/YR / MARK X FOR SHUT-IN WELL	GAS PRODUCED MCF/DAY ** / GAS SPEC. GRAVITY	CONDENSATE PRODUCED / CONDENSATE GRAVITY (API)	WATER PROD BBL/DAY / X BOTTOMHOLE PRESSURE PSIA	***SIWH PRESSURE PSIA / ***FLOWING PRESSURE PSIA
PHANTOM (WOLFCAMP)		10/13/2015	3331 MCF	794.6 BBL	1375.0 BBL	1500
HSS STATE 113-23X14	1H		0.741	53.1		257
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	
			MCF	BBL	BBL	

CERTIFICATION: I declare under penalties prescribed in Texas Natural Resources Code, Sec. 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated herein are true, correct, and complete to the best of my knowledge.

Signature: BHP BILLITON DIANN FLOWERS Title: Phone: (713) 983-2508 Date: 12/22/2015

* AN ASTERISK PREPRINTED ON A SURVEY IDENTIFIES WELL SUBJECT TO COMMINGLING TEST REQUIREMENT

** GAS PRODUCTION RATE, IN MCF, IS TO BE REPORTED FULL-WELL STREAM, INCLUDING CONDENSATE *** PRESSURE FOR THE TEXAS HUGOTON FIELD IS REPORTED IN PSIG

X AN 'X' PREPRINTED ON A SURVEY IN THE BOTTOMHOLE PRESSURE BOX INDICATES A BOTTOMHOLE PRESSURE MUST BE REPORTED FOR THE WELL

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

ELECTRIC LOG STATUS REPORT

FORM L-1

Tracking No.: 147291

This facsimile L-1 was generated electronically from data submitted to the RRC.

Instructions

When to File Form L-1:
- with Forms G-1, W-2, and GT-1 for new and deepened gas, oil, and geothermal wells
- with Form W-3 for plugged dry holes
- when sending in a log which was held under a request for confidentiality and the period for confidentiality has not yet expired.

When is Form L-1 NOT required:
- with Forms W-2, G-1, and GT-1 filed for injection wells, disposal wells, water supply wells, service wells, re-test wells, re-classifications, and plugbacks of oil, gas or geothermal wells
- with Form W-3 for plugging of other than a dry hole

Where to File Form L-1:
- with the appropriate Commission district office

Filling out Form L-1:
- Section I and the signature section must be filled out for all wells
- complete only the appropriate part of Section II

Type of log required:
- any wireline survey run for the purpose of obtaining lithology, porosity, or resistivity information
- no more than one such log is required but it must be of the subject well
- if such log is NOT run on the subject well, do NOT substitute any other type of log; just select Section II, Part A below

SECTION I. IDENTIFICATION

Operator Name: BHP BILLITON PET(TXLA OP) CO	District No. 08	Completion Date: 09/13/2015
Field Name PHANTOM (WOLFCAMP)	Drilling Permit No. 805458	
Lease Name HSS STATE 113-23X14	Lease/ID No.	Well No. 1H
County CULBERSON	API No. 42- 109-32850	

SECTION II. LOG STATUS (Complete either A or B)

☐ A. BASIC ELECTRIC LOG NOT RUN

☒ B. BASIC ELECTRIC LOG RUN. (Select one)

☒ 1. Confidentiality is requested and a copy of the header for each log that has been run on the well is attached.

☐ 2. Confidentiality already granted on basic electric log covering this interval (applicable to deepened wells only).

☐ 3. Basic electric log covering this interval already on file with Commission (applicable to deepened wells only).

☐ 4. Log attached to (select one):

☐ (a) Form L-1 (this form). If the company/lease name on log is different from that shown in Section I, please enter name on log here: _____

Check here if attached log is being submitted after being held confidential. ☐

☐ (b) Form P-7, Application for Discovery Allowable and New Field Designation.

☐ (c) Form W-4, Application for Multiple Completion:

Lease or ID No(s). _____

Well No(s). _____

Diann Flowers Signature	Sr. Regulatory Specialist Title
Name (print)	(713) 983-2508 Phone 12/22/2015 Date

-FOR RAILROAD COMMISSION USE ONLY-

91.12.1

GAMMA RAY

Scientific Drilling

5" = 100' FEET MD

COMPANY : BHPBILLITON
WELL : HHS STATE 113-23X14 #1H
FIELD : PHANTOM WOLFCAMP
COUNTY : CULBERSON
STATE : TEXAS
COUNTRY : UNITED STATES
UWI : 42-109-32850-01

COMPANY : BHPBILLITON

WELL : HHS STATE 113-23X14 #1H

FIELD : PHANTOM WOLFCAMP

COUNTY : CULBERSON

STATE : TEXAS

COUNTRY : UNITED STATES

UWI : 42-109-32850-01

WELL LOCATION

LAT:31°42'4.511"N LONG:104°7'56.646"W

N:760143.79 ft E:818680.76 ft

SEC:23 TWP:- RANGE:-

OTHER SERVICES

DIRECTIONAL

ROP

DEPTH REF. : RKB

REF. HEIGHT : 25.500 ft RKB to Ground Level

GROUND LEVEL : 3220.980 ft G.L. to MEAN SEA LEVEL

BOREHOLE RECORD

HOLE SIZE in	FROM ft	TO ft
13.375	0	450
12.25	450	3481
8.75	3481	8847
6.75	8847	19050

DEVIATION RECORD

INCLINATION deg	FROM ft	TO ft
0	0	3481
0 - 45	3481	8847
45 - 90	8847	9351
90 (+ / - 1)	9351	19050

CASING RECORD

CASING SIZE in	FROM ft	TO ft
11.75	0	450
9.625	450	3481
7.5	3481	8847
5	8847	19050

DRILLING CO. : H&P

RIG : 489

LWD UNIT NO. : MWD-00297-DISTRICT : MIDLAND

SPUD DATE : 14 MAY 2015

LWD START DATE : 22 MAY 2015 DEPTH : 3481 ft

LWD END DATE : 11 JUNE 2015 DEPTH : 19050 ft

TOTAL DEPTH : 19050 ft

Run Data

RUN NUMBER	1	2	ST	ST2	ST3	ST4
START DATE	21 MAY 2015	29 MAY 2015	30 MAY 2015	5 JUNE 2015	5 JUNE 2015	7 JUNE 2015
START TIME	08:00	08:49	18:30	07:30	14:30	08:30
END DATE	28 MAY 2015	30 MAY 2015	5 JUNE 2015	5 JUNE 2015	7 JUNE 2015	8 JUNE 2015
END TIME	06:10	18:30	07:30	14:30	08:30	07:00
DEPTH IN (ft)	3481	8847	8906	15240	15240	16325
DEPTH OUT (ft)	8847	8906	15240	15240	16325	16325
LOG TOP (ft)	3481	8795	8853	15187	15187	16277
LOG BOTTOM (ft)	8795	8853	15187	15187	16277	16277
HOLE SIZE (in)	8.75	6.75	6.75	6.75	6.75	6.75
MUD DATA @ (ft)	3481	8847	8906	15240	15266	16211
MUD TYPE	CUT BRINE	OBM	OBM	OBM	OBM	OBM
DENSITY (lb / gal)	9.8	9.7	9.5	9.5	9.90	9.95
VISCOSITY (s / qt)	29	56	50	50	55	55
pH	11	-	-	-	-	-
FLUID LOSS (cm3 / 30)	120	-	-	-	-	-
SALINITY (ppm)	54000	55000	55000	50000	30000	32000
Rm (ohmm @ deg F)	-	-	-	-	-	-
Rmf (ohmm @ deg F)	-	-	-	-	-	-
MAX TEMP (deg F)	148	151	188	188	180	75
Rm @ MAX TEMP (ohmm)	-	-	-	-	-	-
LWD ENGINEER #1	STEVEN BECKER	STEVEN BECKER	STEVEN BECKER	STEVEN BECKER	STEVEN BECKER	STEVEN BECKER
LWD ENGINEER #2	ADRIAN CARRASCO	ROY KENDRICK	ROY KENDRICK	ROY KENDRICK	ROY KENDRICK	ROY KENDRICK
LWD ENGINEER #3	-	-	-	-	-	-
LOG WITNESS #1	ROBERT RAMIREZ	ROBERT RAMIREZ	ROBERT RAMIREZ	ROBERT RAMIREZ	ROBERT RAMIREZ	ROBERT RAMIREZ
LOG WITNESS #2	-	-	-	-	-	-

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin TX 78711-2967
www.rrc.state.tx.us

CERTIFICATE OF COMPLIANCE AND TRANSPORTATION AUTHORITY

P-4

This facsimile P-4 was generated electronically from data submitted to the RRC.
A certification of the automated data is available in the RRC's Austin office.

Tracking No.: 147291

1. Field name exactly as shown on proration schedule	2. Lease name as shown on proration schedule			
PHANTOM (WOLFCAMP)	HSS STATE 113-23X14			
3. Current operator name exactly as shown on P-5 Organization Report	4. Operator P-5 no.	5. Oil Lse/Gas ID no	6. County	7. RRC district
BHP BILLITON PET(TXLA OP) CO	068596		CULBERSON	08
8. Operator address including city, state, and zip code	9. Well no(s) *(see instruction E)*			
1360 POST OAK BLVD STE 150 HOUSTON, TX 77056	1H			
	10. Classification ☐ Oil ☒ Gas ☐ Other *(see instruction A)*			11. Effective Date 09/13/2015

12. Purpose of Filing. (Complete section a or b below.) *(See instructions B and G)*

a. Change of: ☐ operator ☐ oil or condensate gatherer ☐ gas gatherer ☐ gas purchaser ☐ gas purchaser system code
☐ field name from _____
☐ lease name from _____

OR

b. New RRC Number for: ☐ oil lease ☒ gas well ☐ other well (specify) _____ **Due to:** ☒ new completion or recompletion ☐ reclass oil to gas ☐ reclass gas to oil ☐ consolidation, unitization, or subdivision (oil lease only)

13. Authorized GAS WELL GAS or CASINGHEAD GAS Gatherer(s) and/or Purchaser(s). *(See instruction G).*

Gatherer	Purchaser	Name of GAS WELL GAS or CASINGHEAD GAS Gatherer(s) or Purchaser(s) As Indicated in Columns to the Left *(Attach an additional sheet in same format if more space is needed)*	Purchaser's RRC Assigned System Code	Percent of Take	Full-well stream
X		BHP BILLITON PET (TX GATH), LLC(068595)		100.0	
	X	BP ENERGY CO.(085349)	0001	75.0	
	X	CONOCOPHILLIPS COMPANY(172232)	0001	25.0	

14. Authorized OIL or CONDENSATE Gatherer(s). *(See instruction G).*

Name of OIL or CONDENSATE Gatherer(s) - List Highest Volume Gatherer First *(Attach an additional sheet in same format if more space is needed)*	Percent of Take
NGL CRUDE LOGISTICS, LLC(609236)	90.0
SHELL TRADING (US) COMPANY(774715)	10.0

RRC USE ONLY: Reviewer's initials: _____ Approval date: _____

15. PREVIOUS OPERATOR CERTIFICATION FOR CHANGE OF OPERATOR P-4 FILING. Being the PREVIOUS OPERATOR, I certify that operating responsibility for the well(s) designated in this filing, located on the subject lease has been transferred in its entirety to the above named Current Operator. I understand, as Previous Operator, that designation of the above named operator as Current Operator is not effective until this certificate is approved by the Commission.

Name of Previous Operator _____ Signature _____

Name (print) _____ ☐ **Authorized Employee of previous operator** ☐ **Authorized agent of previous operator** *(see instruction G)*

Title _____ Date _____ Phone with area code _____

16. CURRENT OPERATOR CERTIFICATION. By signing this certificate as the Current Operator, I certify that all statements on this form are true and correct and I acknowledge responsibility for the regulatory compliance of the subject lease including plugging of well(s) pursuant to Rule 14. I further acknowledge that I assume responsibility for the physical operation, control, and proper plugging of each well designated in this filing. I also acknowledge that I will remain designated as the Current Operator until a new certificate designating a new Current Operator is approved by the Commission.

Name (print) _____ Signature Diann Flowers

Title Sr. Regulatory Specialist ☒ **Authorized Employee of current operator** ☐ **Authorized agent of current operator** *(see instruction G)*

E-mail Address (optional) diann.flowers@bhpbilliton.com 12/22/2015 (713) 983-2508

Date Phone with area code

91.121

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
PO Box 12967
Austin, Texas 78711-2967
www.rrc.state.tx.us

CERTIFICATE OF POOLING AUTHORITY

Revised 05/2001

P-12

1. Field Name(s)	2. Lease/ID Number *(if assigned)*	3. RRC District Number
PHANTOM (WOLFCAMP)		08
4. Operator Name	5. Operator P-5 Number	6. Well Number
BHP BILLITON PET (TXLA OP) CO	068596	1H
7. Pooled Unit Name	8. API Number	9. Purpose of Filing
HSS STATE 113-23X14	42-109-32850	☐ Drilling Permit (W-1)
10. County	11.Total acres in pooled unit	☑ Completion Report
CULBERSON	642.63	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT IDENTIFIER	TRACT NAME	ACRES IN TRACT *(See inst. #7 below)*	INDICATE UNDIVIDED INTERESTS UNLEASED	NON-POOLED
1	STATE OF TEXAS MINERALS	323.99	☐	☐
2	STATE OF TEXAS MINERALS	318.64	☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Flowers, Diann [redacted]	Diann Flowers
Signature	Print Name
Sr. Regulatory Specialist	diann.flowers@bhpbilliton.com	12/09/2015	(713) 983-2508
Title	E-mail *(if available)*	Date	Phone

INSTRUCTIONS — Reference: Statewide Rules 31, 38 and 40

1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.
2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.
3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.
4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.
5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.
6. Identify the drill site tract with an * to the left of the tract identifier.
7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

91.13.1 [redacted]

STATEMENT OF PRODUCTIVITY OF ACREAGE
ASSIGNED TO PRORATION UNITS

Form P-15

Tracking No.: 147291

This facsimile P-15 was generated electronically
from data submitted to the RRC.

The undersigned states that he is authorized to make this statement; that he has knowledge of the facts concerning the BHP BILLITON PET(TXLA OP) CO (OPERATOR), HSS STATE 113-23X14 (LEASE), No. 1H (WELL); that such well is completed in the PHANTOM (WOLFCAMP) Field, CULBERSON County, Texas and that the acreage claimed, and assigned to such well for proration purposes as authorized by special rule and as shown on the attached certified plat embraces 642.63 acres which can reasonably be considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge,

Date 12/22/2015 Signature Diann Flowers

Telephone (713) 983-2508 (AREA CODE) Title Sr. Regulatory Specialist

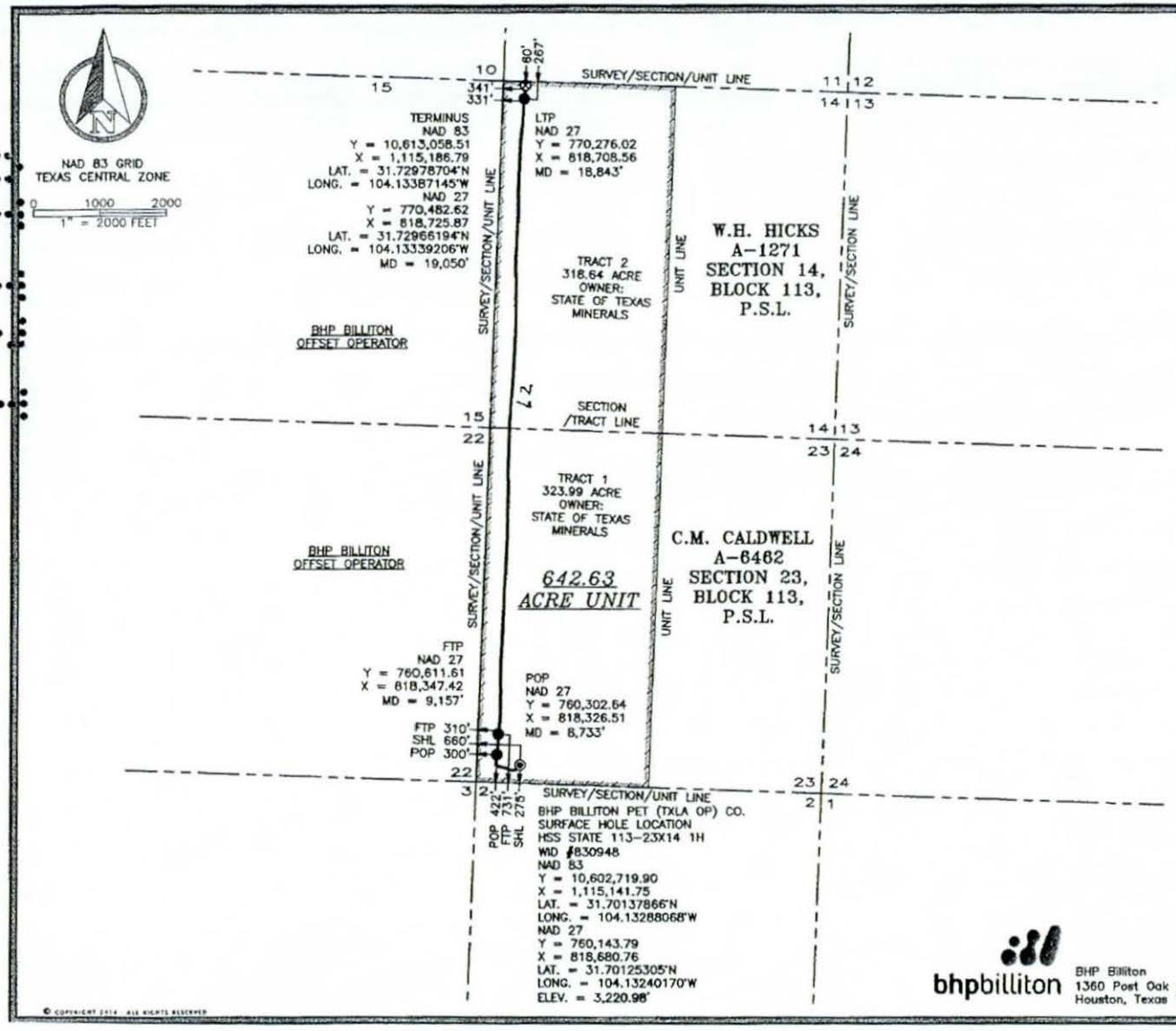
91.12.1

P-15 STATEMENT OF PRODUCTIVITY OF ACREAGE

OPERATOR: BHP BILLITON PET (TXLA OP) CO (068596)
COUNTY: CULBERSON – DISTRICT 08
FIELD NAME: PHANTOM (WOLFCAMP)
LEASE NAME: HSS STATE 113-23x14
LEASE ACRES: 642.63

LEASE ID	DRILLING PERMIT #	WELL NO.	DEDICATED ACRES
PENDING	805458	1H	642.63
		TOTAL ALLOCATED:	642.63
		TOTAL AVAILABLE:	0

91.12.1



GENERAL NOTES

1. COORDINATES SHOWN ARE BASED ON TEXAS COORDINATE SYSTEM OF NAD 27 "TEXAS CENTRAL ZONE" (EPSG 32039), AND BASED ON "LINDLEY" NGS MONUMENT (Y = 765,739.62, X = 920,110.41)
2. VERTICAL DATUM IS NAVD 88 (EPSG 5103)
3. COMBINED SCALE FACTOR = 0.999806055
4. GRID NORTH CONVERGENCE ANGLE IS -1°57'25.15619"
5. LATITUDE AND LONGITUDE ARE NAD 27 (EPSG 4267) AS SHOWN
6. AREA, DISTANCES, AND COORDINATES ARE "GRID"
7. UNITS ARE UNITED STATES SURVEY FOOT.
8. ALL LEASE AND TRACT INFORMATION SHOWN HERE ON IS DONE SO BY LIMITED DEED RECORD INFORMATION ONLY. ALL ACREAGES SHOWN ARE BY DEED AND LEASE CALL, EXCEPT WHERE NOTED. THIS IS NOT IN ANY WAY A "BOUNDARY SURVEY".

I HEREBY STATE THAT THIS PLAT SHOWS THE SUBJECT LOCATION BASED ON INFORMATION PROVIDED BY THE CLIENT.

ROBERT GLEN MALOY
REGISTERED PROFESSIONAL LAND SURVEYOR
LICENSE NO. 6028

STATE OF TEXAS
REGISTERED
ROBERT GLEN MALOY
6028
PROFESSIONAL
LAND SURVEYOR

REVISION	DATE	BY	DETAILS
A	08/03/15	JK	MAKE PRELIMINARY PLAT
B	08/05/15	RP	MOVE FTP
C	08/05/15	JK	MOVE LATERAL, NEW DATA

PLAT OF:

AN AS-DRILLED WELL LOCATION FOR:

BHP BILLITON PET (TXLA OP) CO.

HSS STATE 113-23X14 1H

WID# 830948

SITUATED IN THE C.M. CALDWELL SURVEY, ABSTRACT NO. 6462, SECTION 23, BLOCK 113, AND THE W.H. HICKS SURVEY, ABSTRACT NO. 1271, SECTION 14, BLOCK 113, IN THE PUBLIC SCHOOL LANDS, LOCATED APPROX. 15.7 MILES SOUTHWEST OF ORLA, IN CULBERSON COUNTY, TEXAS

bhpbilliton
BHP Billiton
1360 Post Oak Blvd. #150
Houston, Texas 77056

FRANK
SURVEYING COMPANY INC
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPLS Firm No. 10193887
www.franksurveying.com
LAND SURVEYING/ENERGY/GIS SERVICES

DATE:	08/05/15
DRAWN BY:	JK
CHECKED BY:	RM
FIELD CREW:	RE/MR
PROJECT NO:	2014121456
SCALE:	1" = 2000'
SHEET:	1 OF 1
REVISION:	2

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31.

File No. MF113061

Culberson County

Completion Rpt. for Unit 7505

Date Filed: 3/29/16

George P. Bush, Commissioner

By JM

MF 113603, MF 116836, MF 113061 ✓
MF 115984
Unit 7505

DIVISION ORDER

bhpbilliton
resourcing the future

To: **BHP Billiton Petroleum**
Land Administration
P O Box 22719
Houston, TX 77227-9927
(877) 311- 1443

Issue Date:	9/29/2015
Property Name:	HSS STATE 113-23X14 1H
Property #:	P1M402/00501
Production:	ALL PRODUCTS
Operator:	BHP BILLITON PETROLEUM (TXLA OPERATING)
Legal Description:	PSL ABST/ID# 1271 Grantee W.H. HICKS Blk 113 Sec 14CULBERSON COUNTY, TEXAS PSL ABST/ID# 6462 Grantee C.M. CALDWELL Blk 113 Sec 23 CULBERSON COUNTY, TEXAS (642.630 ACRES)

API 109- 32850

CREDIT TO
Owner # 80113945
STATE OF TEXAS GLO
1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Decimal	Type	Status	Reason	Start Date
0.01575508	RI	PAY		9/1/2015
0.04648476	RI	PAY		9/1/2015
0.04726524	RI	PAY		9/1/2015
0.01549492	RI	PAY		9/1/2015

PLEASE KEEP THIS COPY FOR YOUR RECORDS

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

September 13, 2016

Broderick Brown
Division Order Analyst
BHP Billiton Petroleum
P O BOX 22719
Houston, TX 77227-9927

Re: State Lease Nos. MF113603, MF116836, MF113061 and MF115984
HSS State 113-23X14 1H Unit 7505

Dear Mr. Brown:

The Texas General Land Office (GLO) has received your Division Order for the referenced unit. These Division Orders have been filed in the appropriate mineral files.

The payment of royalties attributable to state-owned mineral and royalty interests is set by contract and applicable statutes and rules. The execution of division orders may, in some cases, affect the manner in which such payments are made or calculated. Therefore, Title 31, §9.32, of the Texas Administrative Code specifies that GLO staff cannot execute a division order or bind the state to any terms contained within it.

Subject to applicable state law and the state's right to take its production in-kind, the GLO acquiesces to the sale of oil and gas in accordance with the terms and conditions set out in the oil and gas leases. If you have questions concerning this matter, please feel free to e-mail me at the address below my signature.

We look forward to being put on pay status as soon as you are able to set up the wells in our RRAC system.

Thank you,

Vivian Hernandez

Vivian Hernandez
Landman, Energy Resources
512-475-0428
512-475-1543 (fax)
vivian.hernandez@glo.texas.gov

File No. MF 113061

Division Order

Date Filed: 9-14-16

George P. Bush, Commissioner

By U.H.

7010 1870 0003 6768 6903

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

MF113061
MF113601
MF113596

Sent To BHP Billiton Petroleum

Street, Apt. No.; or PO Box No.

City, State, ZIP+4

PS Form 3800, August 2006 — See Reverse for Instructions

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail® or Priority Mail®.
- Certified Mail is *not* available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a *Return Receipt* may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS® postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement *"Restricted Delivery"*.
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.

PS Form 3800, August 2006 *(Reverse)* PSN 7530-02-000-9047

SENDER: COMPLETE THIS SECTION

- 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.

1. Article Addressed to:

9590 9403 0530 5173 4174 29

2. Article Number *(Transfer from service label)*

7007 0710 0000 5380 6620

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X M Crites ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* M Crites C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ ail Restricted Delivery 0)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

UNITED STATES POSTAL SERVICE

RECEIVED

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Postage & Fees Paid
USPS
Permit No. G-10

JUL 19 2016

Texas General Land Office
George P. Bush, Commissioner
P.O. Box 12873
Austin, Texas 78711-2873

General Land Office

ATTN: ANDREA CHARLTON

USPS TRACKING#

9590 9403 0530 5173 4174 24

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BHP Billiton Petroleum (TXLA Operating) Company
Attn: Cristen Steele
1360 Post Oak Blvd Ste 150
Houston, TX 77056-3030

COPY

Billing Date: 7/26/2016
Billing Due Date: 8/25/2016
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
16I00535	MF113061	$0.00	$2,180.15	$227.58	$98.49	$2,506.22
16I00537	MF113596	$0.00	$4,332.80	$433.28	$195.87	$4,961.95
16I00539	MF113601	$0.00	$2,180.15	$227.58	$98.49	$2,506.22
Total Due		$0.00	$8,693.10	$888.44	$392.85	**$9,974.39**

Penalty and interest have been calculated thru 7/31/2016. Payment remitted after 7/31/2016 will result in additional penalty and interest charges.

Contact Info: Andrea Charlton (512) 463-5190 or acharlto@glo.texas.gov

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For other royalty reporting questions, visit http://www.glo.texas.gov, call (512) 463-6850 or email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing

BHP Billiton Petroleum (TXLA Operating) Company
Billing Date: 7/26/2016
Billing Due Date: 8/25/2016
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
16I00535	MF113061	$0.00	$2,180.15	$227.58	$98.49	$2,506.22
16I00537	MF113596	$0.00	$4,332.80	$433.28	$195.87	$4,961.95
16I00539	MF113601	$0.00	$2,180.15	$227.58	$98.49	$2,506.22
Total Due		$0.00	$8,693.10	$888.44	$392.85	**$9,974.39**
Amt. Paid						

Energy Financial Management
SMAR Activity / Invoicing Approval

Auditor/Account Examiner: Andrea Charlton
Company Name: BHP BILLITON PET(TXLA OP) CO
Customer Number: C000046383
Mineral File #: MF113061
Transaction Type: Volume Reconciliation
Other / Invoice #:

Previous Amount	Current Amount	Date	AE / Reviewer's Notes	Reviewer's Signature	AR Notes
	$2,506.22	07/21/16	Under reported/paid sales volumes.	MM 7/21/2016	

All original invoices must be approved.
All reductions in billing of more than $1000 must be approved.

Customer ID:	C000046383	**Category**	Oil
Invoice Number:		**Auditor/AE:**	ACHARLTO
GLO Lease:	MF113061	**Billing Date:**	7/22/2016
GLO Review:	BHP BILLTON PET (TXLA OP) CO	**P&I Calculation Date:**	7/31/2016
Review Period:	JAN 2015 Through AUG 2015	**Royalty Rate:**	12.50%

		(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Month / Year	**RRC Number**	**Gas/Oil Volume**	**Tract Particip**	**Price**		**BTU**	**Gross Value**	**Royalty Due**	**Royalty Paid**	**Additional Ro**	**Number of Da**	**Interest Rate For**	**Penalty Rate Fror**	**Interest Rate Fror**	**Revenue Due**
Jan-15	08-272717	130.00	1.00000000	$	39.240000	1.00	$5,101.20	$637.65	$0.00	$637.65	514	4.25%	$63.77	$33.78	$735.20
Feb-15	08-272717	79.00	1.00000000	$	40.260000	1.00	$3,180.54	$397.57	$0.00	$397.57	483	4.25%	$39.76	$19.63	$456.96
Mar-15	08-272717	55.00	1.00000000	$	38.410000	1.00	$2,112.55	$264.07	$0.00	$264.07	453	4.25%	$26.41	$12.11	$302.59
Apr-15	08-272717	64.00	1.00000000	$	45.080000	1.00	$2,885.12	$360.64	$0.00	$360.64	422	4.25%	$36.06	$15.24	$411.94
Jun-15	08-272717	57.00	1.00000000	$	51.340000	1.00	$2,926.38	$365.80	$0.00	$365.80	361	4.25%	$36.58	$12.86	$415.24
Jul-15	08-272717	28.00	1.00000000	$	44.120000	1.00	$1,235.36	$154.42	$0.00	$154.42	330	4.25%	$25.00	$4.87	$184.29
TOTALS		**413.00**					**$17,441.15**	**$2,180.15**	**$0.00**	**$2,180.15**			**$227.58**	**$98.49**	**$2,506.22**

ATTENTION: CRISTEN STEELE
CERTIFIED MAIL : 7010 1870 0003 6768 6903

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WAS COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAS BEEN UNDER PAID.

COLUMN (1) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-272717
COLUMN (3) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE
COLUMN (10)(11)(12) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1 : PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, NOTIFY THE AUDITOR AS TO THE REMITTANCE DATE SO THE INVOICE CAN BE PROPERLY CREDITED.

Energy Financial Management
SMAR Activity / Invoicing Approval

Auditor/Account Examiner: Andrea Charlton
Company Name: BHP BILLITON PET(TXLA OP) CO
Customer Number: C000046383
Mineral File #: MF113601
Transaction Type: Volume Reconciliation
Other / Invoice #:

Previous Amount	Current Amount	Date	AE / Reviewer's Notes	Reviewer's Signature	AR Notes
	$2,506.22	07/21/16	Under reported/paid sales volumes.	MM 7/21/2016	

All original invoices must be approved.
All reductions in billing of more than $1000 must be approved.

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113601
GLO Review: BHP BILLTON PET (TXLA OP) CO
Review Period: JAN 2015 Through AUG 2015

Category Oil
Auditor/AE: ACHARLTO
Billing Date: 7/22/2016
P&I Calculation Date: 7/31/2016
Royalty Rate: 12.50%

		(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Month / Year	**RRC Number**	**Gas/Oil Volume**	**Tract Participa**	**Price**	**BTU**	**Gross Value**	**Royalty Due**	**Royalty Paid**	**Additional Ro**	**Number of Da**	**Interest Rate For**	**Penalty Rate Fror**	**Interest Rate Fror**	**Revenue Due**
Jan-15	08-272717	130.00	1.00000000	$ 39.240000	1.00	$5,101.20	$637.65	$0.00	$637.65	514	4.25%	$63.77	$33.78	$735.20
Feb-15	08-272717	79.00	1.00000000	$ 40.260000	1.00	$3,180.54	$397.57	$0.00	$397.57	483	4.25%	$39.76	$19.63	$456.96
Mar-15	08-272717	55.00	1.00000000	$ 38.410000	1.00	$2,112.55	$264.07	$0.00	$264.07	453	4.25%	$26.41	$12.11	$302.59
Apr-15	08-272717	64.00	1.00000000	$ 45.080000	1.00	$2,885.12	$360.64	$0.00	$360.64	422	4.25%	$36.06	$15.24	$411.94
Jun-15	08-272717	57.00	1.00000000	$ 51.340000	1.00	$2,926.38	$365.80	$0.00	$365.80	361	4.25%	$36.58	$12.86	$415.24
Jul-15	08-272717	28.00	1.00000000	$ 44.120000	1.00	$1,235.36	$154.42	$0.00	$154.42	330	4.25%	$25.00	$4.87	$184.29
TOTALS		**413.00**				**$17,441.15**	**$2,180.15**	**$0.00**	**$2,180.15**			**$227.58**	**$98.49**	**$2,506.22**

ATTENTION: CRISTEN STEELE
CERTIFIED MAIL : 7010 1870 0003 6768 6903

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WAS COMPARED TO VOLUMES REPORTED TO THE RRC.
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COLUMN (1) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-272717
COLUMN (3) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE
COLUMN (10)(11)(12) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Energy Financial Management
SMAR Activity / Invoicing Approval

Auditor/Account Examiner: Andrea Charlton
Company Name: BHP BILLITON PET(TXLA OP) CO
Customer Number: C000046383
Mineral File #: MF113596
Transaction Type: Volume Reconciliation
Other / Invoice #:

Previous Amount	Current Amount	Date	AE / Reviewer's Notes	Reviewer's Signature	AR Notes
	$4,961.95	07/21/16	Under reported/paid sales volumes.	MM 7/21/2016	

All original invoices must be approved.
All reductions in billing of more than $1000 must be approved.

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113596
GLO Review: BHP BILLTON PET (TXLA OP) CO
Review Period: JAN 2015 Through AUG 2015

Category Oil
Auditor/AE: ACHARLTO
Billing Date: 7/22/2016
P&I Calculation Date: 7/31/2016
Royalty Rate: 12.50%

		(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Month / Year	**RRC Number**	**Gas/Oil Volume**	**Tract Particip**	**Price**	**BTU**	**Gross Value**	**Royalty Due**	**Royalty Paid**	**Additional Ro**	**Number of Da**	**Interest Rate For**	**Penalty Rate Fror**	**Interest Rate Fror**	**Revenue Due**
Jan-15	08-272717	259.00	1.00000000	$ 39.240000	1.00	**$10,163.16**	$1,270.40	$0.00	$1,270.40	514	4.25%	$127.04	$67.31	$1,464.75
Feb-15	08-272717	157.00	1.00000000	$ 40.260000	1.00	**$6,320.82**	$790.10	$0.00	$790.10	483	4.25%	$79.01	$39.01	$908.12
Mar-15	08-272717	110.00	1.00000000	$ 38.410000	1.00	**$4,225.10**	$528.14	$0.00	$528.14	453	4.25%	$52.81	$24.23	$605.18
Apr-15	08-272717	127.00	1.00000000	$ 45.080000	1.00	**$5,725.16**	$715.65	$0.00	$715.65	422	4.25%	$71.57	$30.25	$817.47
Jun-15	08-272717	113.00	1.00000000	$ 51.340000	1.00	**$5,801.42**	$725.18	$0.00	$725.18	361	4.25%	$72.52	$25.50	$823.20
Jul-15	08-272717	55.00	1.00000000	$ 44.120000	1.00	**$2,426.60**	$303.33	$0.00	$303.33	330	4.25%	$30.33	$9.57	$343.23
TOTALS		**821.00**				**$34,662.26**	**$4,332.80**	**$0.00**	**$4,332.80**			**$433.28**	**$195.87**	**$4,961.95**

ATTENTION: CRISTEN STEELE
CERTIFIED MAIL : 7010 1870 0003 6768 6903

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WAS COMPARED TO VOLUMES REPORTED TO THE RRC.
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COLUMN (3) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE
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http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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File No. MF113061

County

BHP Billiton Petroleum

Date Filed: 10-4-16

George P. Bush, Commissioner

By

bhpbilliton
resourcing the future

Tel 713-983-2508
Fax 713-966-2925
www.bhpbilliton.com

February 1, 2017

Texas General Land Office
Attn: Matthew T. Scott, P.E.
P.O. Box 12873
Austin, TX 78711-2873

Re: BHP Billiton Pet (TXLA OP) Co (068596)
Request for Surface Commingling Authority - 31 TAC 9.35(a)(3)
HSS State 113-23x14 1H / HSS State 113-22x15 1H
Culberson County, Texas

Mr Scott:

BHP Billiton Pet (TXLA OP) Co, (BHP), is currently completing our second well within the HSS State 113-23x14 pad 16 lease. A lease outline plat is attached for reference.

Upon completion, BHP is requesting permission to surface commingle production from the individual wells referenced above. Please see Attachment No. 2 for detailed information on each well.

Also attached are three (3) copies of the Railroad Commission of Texas, Form P-17, Application for Exception to SWR 26 and/or 27. The P-17 application was sent to the RRC on 2/9/2017. Once approved, BHP will send the GLO a copy of the approved Form P-17, with the commingle permit number.

Number 4 of the GLO's Procedures: Surface Commingling of State of Texas Leases and/or Units is not addressed in this application, as we are not requesting commingling with other leases.

Should you have any questions or require additional information, please email me at Nicole.Vail@bhpbilliton.com or phone (713) 499-5391.

Respectfully,
BHP Billiton Pet (TXLA OP) Co.

Nicole Vail
Regulatory Specialist

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

Form P-17
Rev. 04/2015

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

■ New
☐ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 2 / 2017
District 08
County CULBERSON

SECTION 1. OPERATOR INFORMATION

Operator Name: BHP BILLITON PET (TXLA OP) CO | Operator P-5 No.: 068596

Operator Address: 1360 POST OAK BLVD STE 150 HOUSTON, TX 77056

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: ENTERPRISE CRUDE OIL LLC | Gatherer P-5 No.: 253117

Gatherer Address:

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ☐ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ■ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ■ This exception is for common storage.
f) ■ This exception is for common separation.
g) ☐ This exception is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ■ The production is measured separately from all leases or individual wells before commingling. (*Notice not required; Skip to Section 5*)
b) ☐ The royalty interests and working interests are the same with respect to identity and percentage. (*Notice not required*)
c) ☐ The royalty interests and working interests are not the same with respect to identity and percentage. (*Notice required*)
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. (*Notice required unless 4e. or 4f. apply; see instructions for additional requirements*)
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. (*Notice not required*)
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. (*Notice not required*)
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. (*Notice required*)

SECTION 5. ☐ **Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1.** *(See instructions)*

SECTION 6. ☐ **For oil production, the production from all oil wells on each oil lease is to be commingled.** *(See instructions)*

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 805458	☐ Existing ■ Add ☐ Delete	HSS State 113-23x14	1H
08	DP 819939	☐ Existing ■ Add ☐ Delete	HS State 113-22x15	1H
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ■ No additional pages ☐ Additional pages ____ (# of additional pages)

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Vail, Nicole Title Regulatory Specialist Date 02/09/2017

Operator E-mail Address: permreg@bhpbilliton.com Operator Phone No. _____
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. _____ **Approval date:** _____ **Approved by:** _____

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

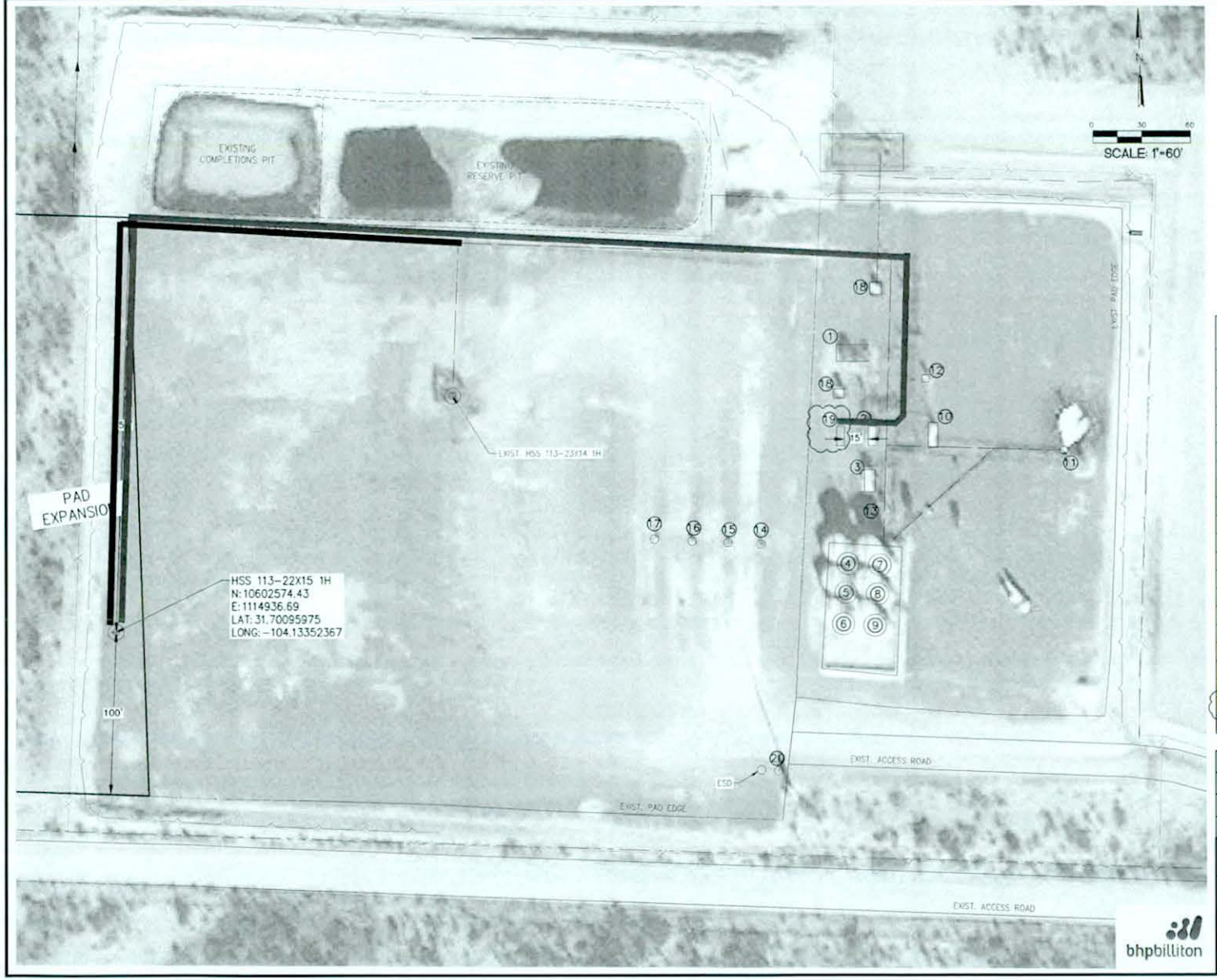
FORM P-17 ATTACHMENT

ATTACHMENT FOR
APPLICATION FOR EXCEPTION TO
STATEWIDE RULES (SWR) 26 AND/OR 27

SECTION 7. (CONT'D) IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		

2·14·17



Above ground 4" Flow Line

Above ground 1" Fuel Gas Line

EQUIPMENT LIST

ITEM	DESCRIPTION
1	FLASH GAS/GAS LIFT COMPRESSOR A (3306NA)
2	HSS 113-23X14 1H HP SEPARATOR
3	LP BULK SEPARATOR
4	PRODUCED WATER TANK (750 BBL)
5	PRODUCED WATER TANK (750 BBL)
6	PRODUCED WATER TANK (750 BBL)
7	OIL STORAGE TANK (750 BBL)
8	OIL STORAGE TANK (750 BBL)
9	OIL STORAGE TANK (750 BBL)
10	HP FLARE KO DRUM
11	HP/LP FLARE
12	FUEL GAS SKID
13	PLC
14	OIL LOADOUT
15	OIL LOADOUT
16	PRODUCED WATER LOADOUT
17	PRODUCED WATER LOADOUT
18	METHANOL TANK
19	HSS 113-22X15 1H HP SEPARATOR
20	FLARE

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
00	10/24/2016	ISSUED FOR CONSTRUCTION	HMW	TLQK	DB

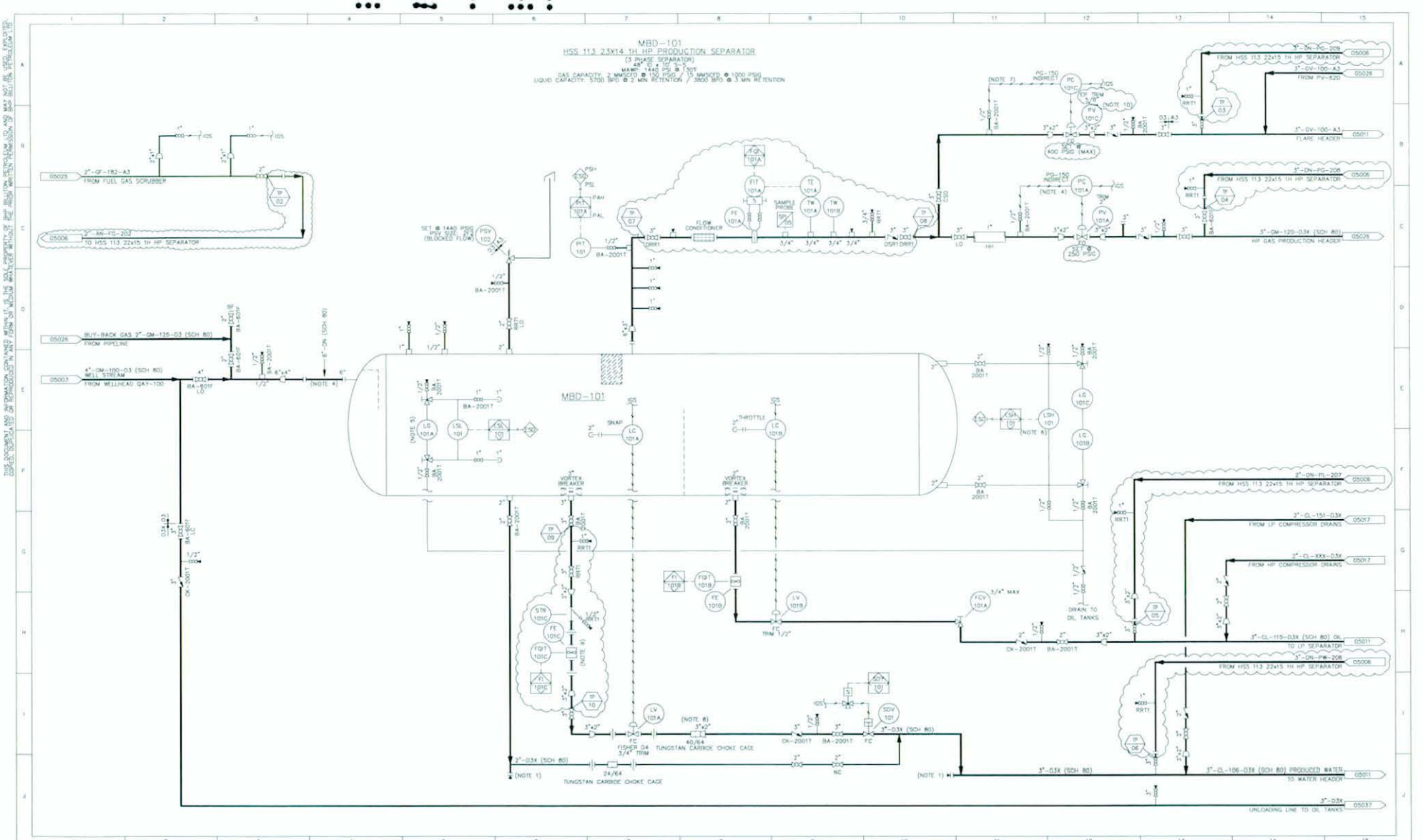
BHP BILLITON

PERMIAN PRODUCTION UNIT
HORSESHOE SPRINGS STATE 113-23x14

FACILITY CONSTRUCTION - EQUIPMENT ARRANGEMENT
CULBERSON COUNTY, TEXAS

BY:	DATE:	BHP BILLITON DWG NO.:	REV NO:
HMW	10/24/2016		00

2.14.17



THIS DOCUMENT AND INFORMATION CONTAINED WITHIN IT, IS THE SOLE PROPERTY OF BHP BILLITON PETROLEUM LTD AND MAY NOT BE COPIED, DUPLICATED OR REPRODUCED IN ANY FORM OR MEDIUM WHATSOEVER WITHOUT PRIOR WRITTEN PERMISSION OF BHP BILLITON PETROLEUM

NOTES
1. BULL PLUGS IN LOW POINT FOR SAND REMOVAL.
2. DO NOT RUN PIPING PAST VALVE (DEAD LEG)
3. DELETED
4. PROVIDE MINIMUM 10 DIAMTERES STRAIGHT PIPE SAME SIZE AS VESSEL INLET NOZZLE.
5. LG-101A EVEN WITH LC-101A, LG-101C EVEN WITH LSH-101. LG-101B EVEN WITH LC-101B.
6. MOUNT LSH-101 CENTERLINE 12" BELOW TOP OF VESSEL.
7. SENSE POINT MINIMUM 10 PIPE DIAMETERS AWAY FROM CONTROL VALVE. NO LOW POINTS IN SENSE LINE. SLOPE BACK TO TAP POINT)
8. MOUNT REDUCER DIRECTLY ON CHOKE CAGE. PROVIDE MINIMUM 3 FEET STRAIGHT PIPE DOWNSTREAM OF REDUCER.
9. 10 PIPE DIAMETERS UPSTREAM AND 5 PIPE DIAMETERS DOWNSTREAM OF STRAIGHT PIPE SHALL BE PROVIDED FOR TURBINE METERS.
10. VERIFY PV-101C TRIM IS 5/8"

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		GL	GL
02	26-SEP-16	ISSUED FOR HAZOP	DLM		CDT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	13-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CDT

DELIVERY MANAGER SIGNATURE REVIEW DATE

BA: REVIEWED AND ACCEPTED FINAL AND CERTIFIED. WORK MAY PROCEED
RN: REVIEWED AND ACCEPTED AS NOTED REVISE AND RE-SUBMIT. WORK MAY PROCEED
RR: REJECTED. INCORPORATE COMMENTS AND UPDATE REVISE AND RE-SUBMIT. WORK MAY NOT PROCEED
INF: REVIEW NOT REQUIRED. DO NOT RESUBMIT FOR INFORMATION ONLY

bhpbilliton

HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
HSS 113 23X14 1H HP SEPARATOR

SCALE: NTS | PROJ. No: 16353 | VENDOR DWG No: | REV No:

BHP BILLITON DWG No: PM7766-PX-PID-05005 | REV No: 03

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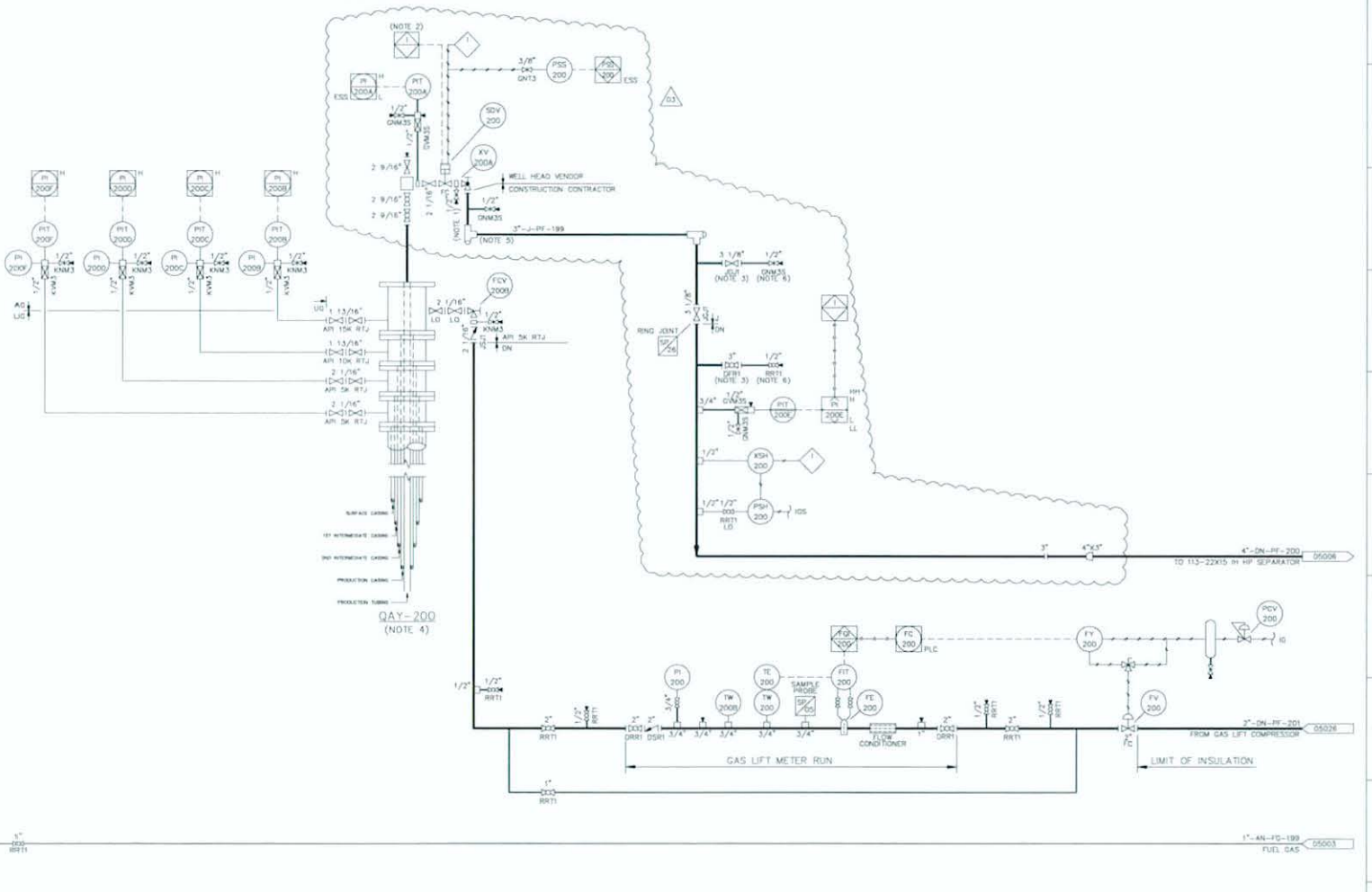
MBF-960
WELLHEAD GAS RECEIVER
7.7 BAL
MAWP: 250 PSIG @ 150°F

QAY-200
HSS 113 22X15 1H WELLHEAD



NOTES:
1. MECHANICAL CHEMICAL INJECTION POINT, TOP OF PIPE.
SEE CAUSE AND EFFECT.
2. CONNECTION TYP SAND SEPARATOR AS REQUIRED.
WELL HEAD PUP TO BE PROVIDED BY CONSTRUCTION CONTRACTOR.
3. 1/2" CONNECTION TO TOP ELBOW UPSTREAM OF SAND SEP.
CENTER DRILL AND TAP BLIND FLANGE TO INSTALL 1/2" VENT VALVE.

REV	DATE	REVISION - DESCRIPTION	BY	CHKD	APP'D
03	06-JAN-17	RE-ISSUED FOR CONSTRUCTION - REVISED WELLHEAD	JDL	CL	
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	CL
01	26-SEP-16	ISSUED FOR HAZOP	DLM		CDT
00	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT

DELIVERY MANAGER SIGNATURE / REVIEW DATE

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SCALE: NTS | PROJ. No: 16353 | VENDOR DWG No: | REV No:

bhpbilliton

HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
HSS 113 22X15 1H WELLHEAD

BHP BILLITON DWG No: PM7766-PX-PID-05004 | REV No: 03

Xrefs: D:\Development\AMD\Vernon\Well Sites\Workpacks\HSS State 113-22X15 1H\3.0 P&ID's\HSS State 113-15x22 Expansion Redlines\HSS 113 22x15 IPH Redlines and IPV Redlines\PM7766 P&IDs_IFC 28-OCT-16\PM7766-PX-PID-05004.dwg, 1/6/2017 2:06:20 PM

5.14.15

2.14.17

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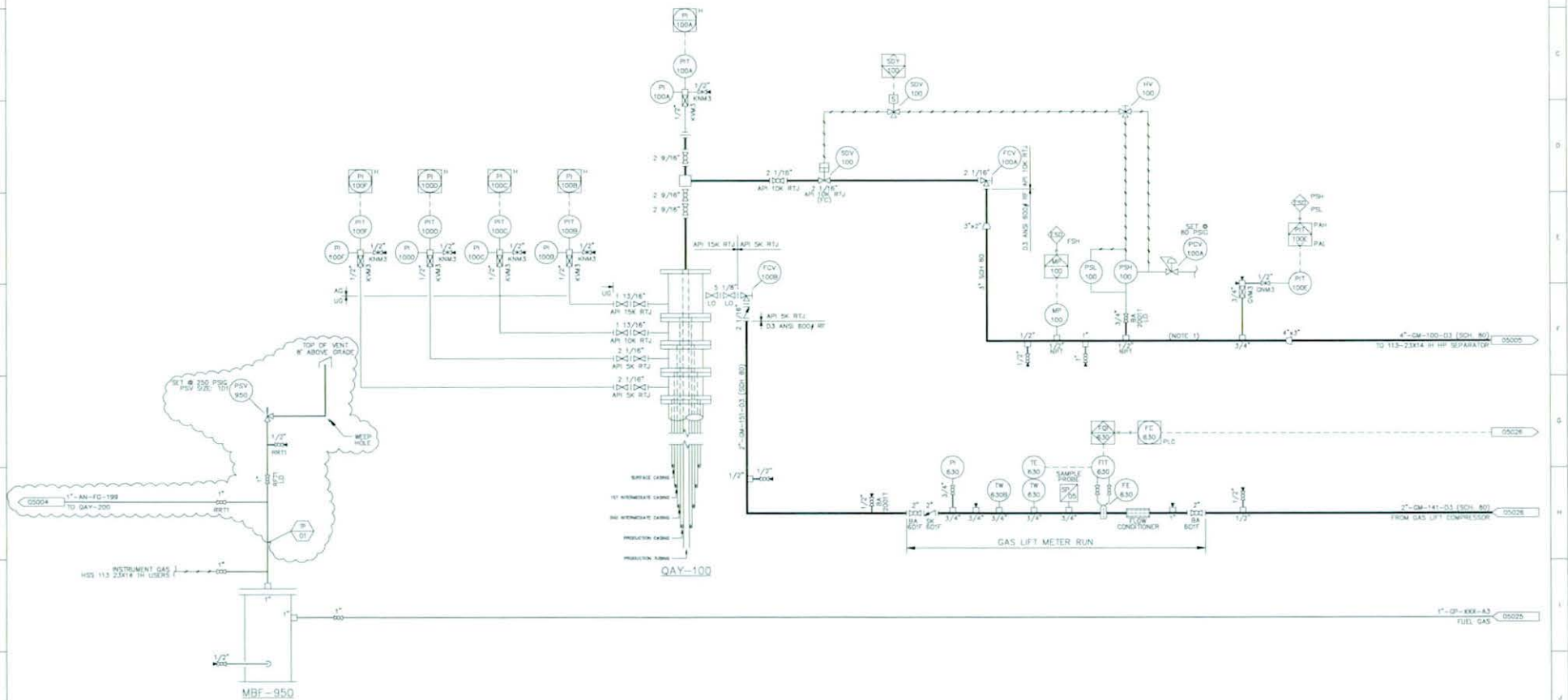
MBF-950
WELLHEAD GAS RECEIVER
7.7 BAL
MAWP: 250 PSIG @ 150°F

QAY-100
HSS 113 23X14 1H WELLHEAD



NOTES
1. ALL BOV TURNS IN THIS LINE TO BE FITTED WITH CUSHION TEES.
2. DELETED.
3. ORDER OF THREADOLETS VS NOT IMPORTANT. THREADOLETS CAN BE ON BLAST JOINT OR IMMEDIATELY DOWNSTREAM ON FLOWLINE.
4. TEMPORARY NITROGEN HOOKUP FOR INITAL START UP IF REQUIRED.

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		DL	DL
02	26-SEP-16	ISSUED FOR HAZOP	DLM		CDT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	15-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	YNY		CDT

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DELIVERY MANAGER SIGNATURE _____ REVIEW DATE _____

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
HSS 113 23X14 1H WELLHEAD

SCALE: NTS | PROJ. No: 16353
VENDOR DWG No: | REV No:
BHP BILLITON DWG No: PM7766-PX-PID-05003 | REV No: 03

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ABBREVIATIONS

AB	BREATHING AIR
AC	AIR TO CLOSE
AO	AIR TO OPEN
BF	BLIND FLANGE
BOV	BOTTOM OF VESSEL
BS&W	BASIC SEDIMENT
BTL	BOTTOM TANGENT LINE
CA	CORROSION ALLOWANCE
CSC	CAR SEAL CLOSED
CSO	CAR SEAL OPEN
DC	DUAL CHAMBER/SENIOR
DBB	DOUBLE BLOCK AND BLEED
DET	DETAIL
ELEV	ELEVATION
ESD	EMERGENCY SHUTDOWN
ESP	ELECTRICAL SUBMERSIBLE PUMP
(F)	FURNISHED
FC	FAIL CLOSED
FL	FAIL LAST
FO	FAIL OPEN
FSD	FLAT SIDE DOWN
FSU	FLAT SIDE UP
HC	HOSE CONNECTION
HH	HAND HOLE
HOA	HAND/OFF/AUTOMATIC
IAS	INSTRUMENT AIR SUPPLY
ICP	INTERCONNECTING PIPING
IF	INTERFACE
IGS	INSTRUMENT GAS SUPPLY
INT	INTERCONNECTING PIPE
I/P	CURRENT TO PRESSURE TRANSDUCER
JOA	JOG/OFF/AUTO
LC	LOCK CLOSED
LO	LOCK OPEN
LS	LIQUID SEAL
MAWP	MAXIMUM ALLOWABLE WORKING PRESSURE
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
MW	MANWAY
NC	NORMALLY CLOSED
NLL	NORMAL LIQUID LEVEL
NO	NORMALLY OPEN
NOL	NORMAL OIL LEVEL
NWL	NORMAL WATER LEVEL
OAL	OVER ALL LENGTH
OP	OPERATING PRESSURE
OPT	OPTIONAL
OT	OPERATING TEMPERATURE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PM	PRODUCTION MODULE
P/L	PIPELINE
RTD	RESISTANCE TEMPERATURE DETECTOR
S/D	SHUTDOWN
SC	SINGLE CHAMBER/JUNIOR
SITP	SHUT IN TUBING PRESSURE
SNAP	SNAP ACTING CONTROL
SR	STRESS RELIEF
ST	STEAM
S/S	SEAM TO SEAM, OR START, STOP
THROTTLE	THROTTLE ACTING CONTROL
T/T	TANGENT TO TANGENT
UAS	UTILITY AIR SUPPLY

EQUIPMENT/COMPONENT IDENTIFICATION

P-2100
- AREA IDENTIFIER
- TRAIN/WELL #
- TYPE

TYPE	
A	AIR COOLER
C	COMPRESSOR
E	HEAT EXCHANGER
F	FILTER OR COALESCER
G	GENERATOR
H	HEATER
M	MOTOR/ENGINE
N	ENGINE
P	PUMP
T	STORAGE
V	VESSEL
W	WELLHEAD
Z	OTHER/SKID/PACKAGED EQUIPMENT

AREA IDENTIFIER		
	WELL PADS	EPS/CDP
100	WELL AND FLOW LINE	PIPING AND PIG RECEIVERS
200	SEPARATION	INLET SEPARATORS
300	HEATER TREATER	STABILIZATION
400	COMPRESSION (FLASH GAS)	STABILIZER COMPRESSION
500	CHEMICAL	AMINE/H2S SCAVENGING
600	COMPRESSION (SALES GAS)	MAIN LINE COMPRESSION
700	GAS LIFT	DEHYDRATION
800	STORAGE/TRUCK LOADING	STORAGE/TRUCK LOADING
900	UTILITY/FUEL GAS/FLARE	UTILITY/FUEL GAS/CHEM/FLARE

* ALL MAJOR EQUIPMENT TAG NUMBER UNIQUE IDENTIFIERS TO END IN "0"
* SIMILAR EQUIPMENT IN A TRAIN WILL USE ALPHABETIC SUFFIXES

PIPING LINE IDENTIFICATION

4" - AN - PL - 1200 - 1" - WF - ETW
- HEAT TRACE (OPT)
- INSULATION TYPE (OPT)
- INSULATION THICKNESS (OPT)
- LINE NUMBER
- SERVICE IDENTIFICATION
- PIPING SPECIFICATION
- NOMINAL PIPE SIZE

PIPING LINE NUMBERS

SYSTEM	SEQUENCE
LOW PRESSURE PROCESS	1000
HIGH PRESSURE PROCESS	2000
LOW PRESSURE VENT AND RELIEF	3000
HIGH PRESSURE VENT AND RELIEF	4000
UTILITY SYSTEMS	5000
DRAIN SYSTEMS	6000
CHEMICAL INJECTION SYSTEMS	7000
WATER SYSTEMS	8000
API SYSTEMS	9000

INSULATION TYPE

CB	COLD CONSERVATION
CF	COLD CONSERVATION (FIBERGLASS)
HB	HEAT CONSERVATION (FIBERGLASS, > 750°F)
HF	HEAT CONSERVATION (FIBERGLASS, < 750°F)
HH	HEAT CONSERVATION
PP	PERSONNEL PROTECTION (EXPANDED METAL, FIBERGLASS > 400°F)
WF	WINTERIZATION (FIBERGLASS)

HEAT TRACE

ETW	ELECTRICAL TRACE WINTER
ETP	ELECTRICAL TRACE PROCESS

PIPING SPECIFICATION

A T
- MODIFIER (2)
- PIPING CLASS (1)

(1)	PRESSURE RATING
A	ASME CLASS 150#
B	ASME CLASS 300#
D	ASME CLASS 600#
E	ASME CLASS 900#
F	ASME CLASS 1500#
G	ASME CLASS 2500#
J	API 5000
K	API 10000
N	NON-METALLIC
S	LOW PRESSURE STORAGE
T	LOW PRESS TUBING
U	HIGH PRESS TUBING

(2)	MODIFIER
A	LOW PRESSURE CS
C	LOW TEMPERATURE CS (-50°F)
D	STAINLESS STEEL
F	FIBERGLASS
G	GALVANIZED CS
H	HIGH CORROSION/CO2 CS (3/16 IN)
L	LOW CORROSION CS (0.05 IN)
M	MEDIUM TEMPERATURE CS (450F)
N	NORMAL CORROSION CS (1/8 IN)
P	POLYETHYLENE
R	REINFORCED (FLEX PIPE)
S	SOUR (H2S)
T	HIGH TEMPERATURE CS (650F)
U	COPPER
V	PVC
Z	ZERO CORROSION CS

PIPING SERVICE IDENTIFICATION

SERVICE	SERVICE CODE	T MAX (F)
ACID GAS (>15% CO2)	AG	150
COOLANT ENGINE	CE	100
DRAIN CLOSED	DC	150
DRAIN OPEN	DO	100
FUEL DIESEL	FD	100
FUEL GAS	FG	150
HEAT MEDIA (HOT OIL)	HM	650
INSTRUMENT AIR	IA	150
INSTRUMENT GAS	IG	150
LUBE OIL	LO	100
NITROGEN	NI	150
NONCORROSIVE SWEET HYDROCARBON FLUIDS	PF	450
NONCORROSIVE SWEET HYDROCARBON GAS	PG	450
NONCORROSIVE SWEET HYDROCARBON LIQUID	PL	450
PROCESS SOUR (>0.05 PSIA H2S)	PS	250
PRODUCED WATER	PW	150
SANITARY	SS	100
UTILITY AIR	UA	150
UTILITY WATER	UW	150
ATMOSPHERIC VENT	VA	150
VENT HIGH PRESSURE	VH	150
VENT LOW PRESSURE	VL	150
AMINE (RICH AND LEAN)	ZA	300
GLYCOL (TEG RICH AND LEAN)	ZG	450
CHEMICAL INJECTION	ZI	150

LINE TYPES

MAJOR PROCESS	INSTRUMENT CAPILLARY TUBING
MINOR PROCESS	HYDRAULIC LINE
MAJOR SECONDARY	WIRELESS SIGNAL
MINOR SECONDARY	EXISTING
SKID/UNIT LIMIT	FUTURE
MATCHLINE	HIDDEN
EQUIPMENT	TEXT
REVISION	SYM
INSTRUMENT	WIRELESS
ELECTRIC LEAD	INSULATION
SOFTWARE LINK	INSULATION WITH HEAT TRACING
PNEUMATIC SIGNAL LINE (GAS OR AIR)	

VALVE CODE INDEX

B B R 1 X
- SPECIAL VALVE QUALIFIER (5)
- MATERIAL (4)
- VALVE END FACING (3)
- VALVE TYPE (2)
- PIPING CLASS (1)

(1)	PRESSURE RATING
A	150# (285 PSIG @ 100°F)
B	300# (740 PSIG @ 100°F)
D	600# (1480 PSIG @ 100°F)
E	900# (2220 PSIG @ 100°F)
F	1500# (3705 PSIG @ 100°F)
G	2500# (6170 PSIG @ 100°F)
J	API 5000 (5000 PSIG @ 100°F)
K	API 10000 (10000 PSIG @ 100°F)
N	150 PSIG @ 100°F
P	600 PSIG @ 100°F
R	2000 PSIG @ 100°F
T	3000 PSIG @ 100°F
V	15000 PSIG @ 100°F

(2)	TYPE
B	CHECK, BALL TYPE
D	BALL, DB&B REDUCED PORT
E	BALL, DB&B FULL PORT
F	BALL, FULL PORT
G	GATE
L	GLOBE
N	NEEDLE
P	CHECK, PISTON/POPPET TYPE
R	BALL, REDUCED PORT
S	CHECK, SWING TYPE
T	BUTTERFLY
V	GAUGE
W	CHECK, WAFER (DUAL PLATE) TYPE

(3)	END CONNECTION
B	TUBING FITTING
F	FLAT FACE FLANGE
J	RTJ FLANGE
M	THREADED (M x F)
R	RAISED FACE FLANGE
S	SOCKETWELDED
T	THREADED (F x F)
W	SOCKETWELD x THREAD
X	SPECIAL

(4)	MATERIAL
1	CARBON STEEL
2	LOW TEMP CARBON STEEL
3	STAINLESS STEEL
4	BRONZE/BRASS
5	PVC

(5)	SPECIAL VALVE QUALIFIER
C	CORROSIVE PRODUCTION FLUID
G	GAS SERVICE ONLY
L	LOW TEMPERATURE
M	MEDIUM TEMPERATURE
S	SOUR (NACE COMPLIANT)
T	HIGH TEMPERATURE

VALVE SYMBOLS

	2" AND ABOVE	LESS THAN 2"		
GATE VALVE	⋈	⋈	3 WAY	
BALL VALVE	○○	○○	ANGLE VALVE	
GLOBE VALVE	⋈	⋈	CHOKE VALVE-ADJUSTABLE	
PLUG VALVE	○○	○○	CHOKE VALVE-FIXED	
CHECK VALVE	⋈	⋈	GAUGE GLASS VALVE	
NEEDLE VALVE	⋈	⋈	GAUGE VALVE	
BUTTERFLY VALVE	⋈	⋈	PNEUMATIC PILOT WITH RESET	
SOLENOID	S		AUTOMATIC CHOKE WITH SMART POSITIONER AND HAND WHEEL	
SHUT DOWN VALVE (GATE)			REGULATOR	
SHUT DOWN VALVE (BALL)			ANGLE REGULATOR	
CONTROL VALVE (GATE)			BLEED RING	
CONTROL VALVE (BALL)			FAIL FLOW DIRECTION	
CONTROL VALVE (GLOBE)			PLUG	
CONTROL VALVE (BUTTERFLY)				

NOTES

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
01	26-SEP-18	ISSUED FOR HAZOP	DLM		CGT
00	21-SEP-18	ISSUED FOR HAZOP CHECK PRINT	DLM		CGT

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DELIVERY MANAGER SIGNATURE — REVIEW DATE

VENDOR DWG No: — REV No:

SCALE: NTS — PROJ. No: 16353

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
LEGEND & SYMBOLOGY SHEET

BHP BILLITON DWG No: PM7766-PX-PID-05002-02 — REV No: 01

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GENERAL INSTRUMENT SYMBOLS

	PRIMARY LOCATION *NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY LOCATION *NORMALLY ACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	◯	◯	◯
SHARED DISPLAY, SHARED CONTROL	⬡	⬡	⬡
COMPUTER FUNCTION	⬡	⬡	⬡
PROGRAMMABLE LOGIC CONTROL	⬡	⬡	⬡

* NORMALLY INACCESSIBLE OR BEHIND-THE-PANEL DEVICES OR FUNCTIONS MAY BE DEPICTED BY USING THE SAME SYMBOL BUT WITH DASHED HORIZONTAL BARS, I.E.

INSTRUMENT WITH TWO SERVICES OR FUNCTIONS OR TWO DEVICES IN A COMMON HOUSING

SURFACE MOUNTED SENSOR

PILOT LIGHT

INSTRUMENT TAG NUMBER IDENTIFICATION

FIRST LETTER — FUNCTIONAL IDENTIFICATION

SUCCEEDING LETTERS — LOOP NUMBER c/w OPTIONAL SUFFIX

(SEE "INSTRUMENT ABBREVIATIONS" - THIS SHEET FOR EXAMPLES)

INSTRUMENT FUNCTION — ACTUAL BALLOON DIA. 1/2" (MINIMUM)

FIRST LETTER	SUCCEEDING LETTERS
A ANALYSIS	A ALARM
B BURNER	B BINARY (ON-OFF)
C COMBUSTION (FIRE)	C CONTROL OR CLOSED
D	D DIFFERENTIAL
E VOLTAGE	E SENSOR (PRIMARY ELEMENT)
F FLOW RATE	F RATIO (FRACTION)
G	G GLASS (VIEWING DEVICE)
H HAND (MANUAL)	H HIGH (ALARM ONLY)
	HH HIGH-HIGH (SHUTDOWN)
I CURRENT (ELECTRICAL)	I INDICATE
J POWER	J SCAN
K TIME (SEQUENCE)	K RATE OF CHANGE
L LEVEL	L LIGHT
	LL LOW (ALARM ONLY)
	LL LOW-LOW (SHUTDOWN)
M	M MOTOR OR MOMENTARY
N	N SOLENOID VALVE
O	O ORIFICE
P PRESSURE OR VACUUM	P POINT (TEST CONNECTION)
Q QUANTITY	Q INTEGRATE, TOTALIZE
R RADIATION	R RECORD
S SPEED OR FREQUENCY	S SAFETY OR SWITCH
T TEMPERATURE	T TRANSMIT
U MULTIVARIABLE	U MULTIFUNCTION
V VIBRATION OR MECHANICAL ANALYSIS	V VALVE (DAMPER,LOUVER)
W WEIGHT OR FORCE	W WELL
X UNCLASSIFIED	X UNCLASSIFIED FINAL CONTROL ELEMENT
Y EVENT, STATE OR PRESENCE	Y RELAY,COMPUTE,CONVERT
Z POSITION, DIMENSION (LIMIT)	Z DRIVER, ACTUATION, UNCLASSIFIED FINAL CONTROL ELEMENT

GENERAL LOOP IDENTIFICATION

STANDARD ABBREVIATIONS

A	AMBER PILOT LIGHT
AG	ABOVE GROUND
ATM	ATMOSPHERE
BF	BLIND FLANGE
BIO	BIOSOLIDS
BL	BATTERY LIMIT
BLDG	BUILDING
COND	STEAM CONDENSATE
CS	CARBON STEEL
CSC	CAP SEAL CLOSED
CSO	CAP SEAL OPEN
CN	CHOKE NIPPLE
CT	CUSHION TEE
D	DRAIN
DE	DE-ENERGIZED (SOLENOID)
DSG	DESIGN
DWG	DRAWING
E	ENERGIZED (SOLENOID)
EY	ELECTRICAL TRACED
F	FURNISHED WITH EQUIP
FC	FAIL CLOSED
FD	FAIL DIVERTED
FL	FAIL LAST
FM	FROM
FO	FAIL OPEN
FT	FAIL THROUGH
G	GREEN PILOT LIGHT
HOA	HAND/OFF/AUTOMATIC
HOR	HAND/OFF/REMOTE
HYDRL	HYDROLYSATE
IAS	INSTRUMENT AIR SUPPLY
IC	INTERNALLY COATED
IN	INSULATE (ED)
KO	KNOCK-OUT (SEPARATOR)
LAH	HIGH LIQ. LEVEL (ALARM)
LAHH	HIGH, HIGH LIQUID (LVL) (SHUTDOWN)
LAL	LOW LIQUID LEVEL (ALARM)
LALL	LOW, LOW LIQUID LEVEL (ALARM/SHUTDOWN)
LC	LOCKED CLOSED
LO	LOCKED OPEN
MW	MANWAY
NC	NORMALLY CLOSED
NLL	NORMAL LIQUID LEVEL
NNF	NORMALLY NO FLOW
OAH	OVER ALL HEIGHT
OAL	OVER ALL LENGTH
OVS	OUTSIDE BUILDING
OT	OIL TRACED
OH	OVERHEAD
PB	PIG BAR
PP	PERSONNEL PROTECTION
PSV	PRESSURE SAFETY VALVE
R	RED PILOT LIGHT
RI	RELIEF INDICATOR
SHT	SHEET (DRAWING)
SP	SET POINT
SPR	SAND PROBE
SS	STAINLESS STEEL
S-S	SEAM-TO-SEAM
ST	STEAM TRACE
STM	STEAM
TP	TIE POINT
TT	TANGENT-TO-TANGENT
TW	THERMAL WELL
UG	UNDER GROUND
UT	UTILITY STATION
V	VENT
VSV	VACUUM SAFETY VALVE
WT	WALL THICKNESS
X	DATA NOT AVAILABLE
ΔP	PRESSURE DIFFERENTIAL
ΔT	TEMP. DIFFERENTIAL

INSTRUMENT ABBREVIATIONS

AA*	ANALYSIS ALARM
AC	ANALYSIS CONTROLLER (SAMPLER)
AE	ANALYSIS ELEMENT (SAMPLER)
AI	ANALYSIS INDICATOR
AIC	ANALYSIS INDICATING CONTROLLER
AIH	ANALYSIS INDICATING SWITCH
AIT	ANALYSIS INDICATING TRANSMITTER
AP	ANALYSIS POINT (CHROMATOGRAPH)
AR	ANALYSIS RECORDER
AS*	ANALYSIS SWITCH
AT	ANALYSIS TRANSMITTER (CHROMATOGRAPH)
AV	ANALYSIS CONTROL VALVE
AY	ANALYSIS RELAY
BA*	BURNER ALARM*
BE	BURNER ELEMENT
BS	BURNER SWITCH
CE	INFRARED GAS DETECTOR
CI	VOLTAGE INDICATOR
CY	ELECTRIC OPERATOR
CS*	VOLTAGE SWITCH
FA*	FLOW ALARM
FC	FLOW CONTROLLER
FCV	FLOW CONTROL ELEMENT
FE	FLOW ELEMENT
FFC	FLOW RATIO CONTROLLER
FI	FLOW INDICATOR
FIC	FLOW INDICATING CONTROLLER
FO	FLOW ORIFICE (RESTRICTION ORIFICE)
FQI	FLOW TOTALIZER/FLOW COMPUTER
FQ	FLOW TOALIZING INDICATOR
FQS*	FLOW TOTALIZING SWITCH
FR	FLOW RECORDER
FRCV	FLOW RECORDING CONTROL VALVE
FS*	FLOW SWITCH
FT	FLOW TRANSMITTER
FV	FLOW VALVE
FX	FLOW STRAIGHTENING VANE
FY	FLOW RELAY
FYY	FLOW COMPUTING RELAY (MASS)
HC	HAND CONTROLLER
HV	HAND CONTROL VALVE
HD	HEAT DETECTOR
HS	HAND SWITCH
HV	HAND SELECTOR VALVE
IR	INFRARED FLAME DETECTOR
L	LEVEL DEVICE
LA*	LEVEL ALARM
LC	LEVEL CONTROLLER
LCV	LEVEL CONTROL VALVE
LG	LEVEL GAUGE GLASS
LI	LEVEL INDICATOR (OTHER THAN LG)
LIC	LEVEL INDICATING CONTROLLER
LR	LEVEL RECORDER
LS	LEVEL SWITCH
LT	LEVEL TRANSMITTER
LV	LEVEL VALVE
MA*	MOISTURE ALARM
MC	MOISTURE CONTROLLER
ME	MOISTURE ELEMENT
MI	MOISTURE INDICATOR
MR	MOISTURE RECORDER
MS*	MOISTURE SWITCH
MT	MOISTURE ANALYZER/TRANSMITTER
OSA*	OVER SPEED ALARM
OSS*	OVER SPEED SWITCH
PA*	PRESSURE ALARM
PC	PRESSURE CONTROLLER
PCV	PRESSURE CONTROL VALVE (SELF-CONTAINED)
PDA*	PRESSURE DIFFERENTIAL ALARM
PDCV	PRESSURE DIFFERENTIAL CONTROL VALVE
PD	PRESSURE DIFFERENTIAL INDICATSME CONTROLLER
PDIC	
PDIS	PRESSURE DIFFERENTIAL INDICATING SWITCH
PDR	PRESSURE DIFFERENTIAL RECORDER
PDS*	PRESSURE DIFFERENTIAL SWITCH
PDT	PRESSURE DIFFERENTIAL TRANSMITTER
PI	PRESSURE INDICATOR
PIC	PRESSURE INDICATING CONTROLLER
PIT	PRESSURE INDICATING TRANSMITTER
PO	PISTON OPERATOR
PR	PRESSURE RECORDER
PRC	PRESSURE RECORDING CONTROLLER
PRV	PRESSURE REGULATING VALVE
PS*	PRESSURE SWITCH
PSE	PRESSURE SAFETY HEAD
PSV	PRESSURE SAFETY/RELIEF VALVE
PT	PRESSURE TRANSMITTER
PV	PRESSURE CONTROL VALVE
PY	PRESSURE RELAY
SA*	SPEED ALARM
SDV	SHUT DOWN VALVE
SDV	SHUT DOWN SOLENOID
SE	SPEED ELEMENT
SG	SHAFTER GENERATOR
SOV	SHUTOFF VALVE
ST	SPEED SWITCH (TACHOMETER PICK-UP)
ST	SPEED TRANSMITTER
STR	STRAINER
TA*	TEMPERATURE ALARM
TC	TEMPERATURE CONTROLLER
TCV	TEMPERATURE CONTROL VALVE
TDI	TEMPERATURE DIFFERENTIAL INDICATOR
TE	TEMPERATURE ELEMENT (WITH THERMOWELL)
TI	TEMPERATURE INDICATOR (WITH THERMOWELL)
TIC	TEMPERATURE INDICATING CONTROLLER
TICV	TEMPERATURE INDICATING CONTROL VALVE
TR	TEMPERATURE RECORDER
TRC	TEMPERATURE RECORDING CONTROLLER
TRCV	TEMPERATURE RECORDING CONTROL VALVE
TS*	TEMPERATURE SWITCH
TT	TEMPERATURE TRANSMITTER
TV	TEMPERATURE CONTROL VALVE
TW	TEMPERATURE TEST CONNECTION (THERMOWELL)
VA*	VIBRATION ALARM
VE	VIBRATION ELEMENT
VM	VALVE MANIFOLD
VS*	VIBRATION SWITCH
XA	RESERVED FOR SHUTDOWN DEVICE
XA	ANNUNCIATOR POINT
XE	PIG PASSAGE INDICATOR
XY	SPECIAL RELAY (USUALLY A SOLENOID)
XY	DEVICE I/P, SDV, RELAY, ETC.
ZA*	POSITION ALARM (MOTION)
ZE	POSITION DETECTOR (MOTION)
ZSC	POSITION INDICATOR LAMP (VALVE CLOSED)
ZSO	POSITION INDICATOR LAMP (VALVE OPEN)
ZS*	POSITION SWITCH (MOTION)
ZSC	POSITION INDICATOR SWITCH (VALVE CLOSED)
ZSO	POSITION INDICATOR SWITCH (VALVE OPEN)
ZT	POSITION TRANSMITTER

* ALARMS, SWITCHES AND ANNUNCIATORS MAY HAVE SUFFIX LETTERS AS FOLLOWS
- L LOW ALARM
- LL LOW SHUTDOWN
- H HIGH ALARM
- HH HIGH SHUTDOWN

NOTE: IDENTIFICATION OF INSTRUMENTS NOT COVERED IN THE LISTINGS ABOVE SHALL CONFORM TO ANSI/ISA S5.1 "INSTRUMENTATION SYMBOLS AND IDENTIFICATION"

LINE NUMBERING KEY

3"-GN-100-053

- 3" — PIPE SIZE
- GN — SERVICE INDEX
- 100 — PIPING CLASS CODE
- 053 — LINE NUMBER

PIPING CLASS CODES

CLASS	ANSI FLANGE RATING	MATERIAL	ENDS	SERVICE	ASME CODE
A1	150	CS	RF/TE	GM (SWEET)	B31.8
A1X	150	CS	RF/TE	GM (SOUR)	B31.8
B1	300	CS	RF/TE	GM (SWEET)	B31.8
B1X	300	CS	RTJ/TE	GM (SOUR)	B31.8
D3	600	CS	RF/TE	GM (SWEET)	B31.3
D3.1	600	CS	RF/TE	GM (SOUR)	B31.8
D8	600	CS	RF/TE	GM (SWEET)	B31.8
D3.8	600	CS	RTJ/TE	GM (SOUR)	B31.8
E3	900	CS	RF/RTJ/TE	GM (SWEET)	B31.3
J3	API 5000		RTJ		B31.3
H6	600	HDPE		GM (SWEET)	B31.8
D3X	600	CS	NOTE 1	GM (SWEET)	B31.3

SERVICE INDEX

A	INSTRUMENT AIR
AP	POWER AIR
AS	STARTING AIR
AU	UTILITY AIR
CL	LIQUID CONDENSATE
DCW	CORROSIVE WATER DRAIN
DA	ATMOSPHERIC DRAIN
DP	PRESSURIZED DRAIN
GF	FUEL GAS
GI	INSTRUMENT GAS
GM	MAIN PROCESS GAS (SWEET)
GMS	MAIN PROCESS GAS (SOUR)
GP	POWER GAS
GS	STARTING GAS
GV	GAS VENT
OL	LUBE OIL
OS	SEAL OIL
LG	LEAN GLYCOL
NGL	NATURAL GAS LIQUIDS
RG	RICH GLYCOL
VA	ATMOSPHERIC VENT
VB	ATMOSPHERIC BLOW DOWN
WA	WATER (ALL EXCEPT POTABLE)
WP	POTABLE WATER
LA	LEAN AMINE
RA	RICH AMINE
SC	SCAVENGER

RELAY AND CONVERTER DESIGNATIONS

- SELECT LOW SIGNAL
- SELECT HIGH SIGNAL
- MOTOR TO PNU. TRANSDUCER
- PNEUMATIC TO CURRENT TRANSDUCER
- ELECTROHYDRAULIC TRANSDUCER
- CURRENT TO PNU. TRANSDUCER
- TOTALIZER
- SQUARE ROOT
- RESISTANCE TO CURRENT TRANSDUCER
- AUTO/MANUAL LOADING SYSTEM

EXAMPLE: SELECT LOW SIGNAL

EXAMPLE: SELECT HIGH FLOW SIGNAL

INTERLOCK LOGIC

- COMPLEX OR UNDEFINED INTERLOCK
- OUTPUT ONLY IF ALL INPUTS PRESENT
- PERMISSIVE
- TRAIN SHUTDOWN X = 1,2,3, ETC.
- RESET
- EMERGENCY SHUTDOWN LOGIC

INTERCONNECTING LINES

- PROCESS LINE
- SECONDARY LINE
- UTILITY LINE
- FUTURE LINE
- SKID BOUNDARY
- PNEUMATIC SIGNAL
- ELECTRICAL SIGNAL
- WIRELESS LINK
- CAPILLARY TUBING
- HYDRAULIC SIGNAL
- INTERNAL SOFTWARE LINK
- ELECTROMAGNETIC OR SONIC SIGNAL
- ELECTROMAGNETIC GUIDED
- MECHANICAL CONNECTION
- CHEMICAL INJECTION

PIPE INSULATION

INSULATION XX" IN

ID	TYPE
IH	HEAT RETENTION
IC	COLD RETENTION
IP	PERSONNEL PROTECTION
AS	ANTI SWEAT

INSULATION WITH TRACE XX" IN ET

ID	TYPE
ET	ELECTRIC TRACE
ST	STEAM TRACE
OT	OTHER TRACE (HOT OIL, ETC.)

JACKETED PIPE XX" IN

PUMPS

DIAPHRAM PUMP — CIRCULATING PUMP

VALVE LEGEND

BA-100 Y

BA-12IY

VALVE SIZE (NPS)

VALVE TYPE
- DA - GATE
- GL - GLOBE
- CK - CHECK
- BA - BALL
- PL - PLUG
- NE - NEEDLE

VALVE RATING (CLASS)
- 100 SERIES - CLASS 150
- 300 SERIES - CLASS 300
- 600 SERIES - CLASS 600
- 800 SERIES - 800
- 2000 SERIES - 2000
- 3000 SERIES - 3000
- 6000 SERIES - 6000

END CONNECTION
- F - FLANGED
- W - BUTT WELD
- X - WELD X FLANGE
- T - THREADED
- S - SOCKET WELD

VALVES

GATE (LEGEND) · BALL · GLOBE · PLUG · CHECK · NEEDLE · BUTTERFLY · PINCH · QUICK · DIAPHRAGM

ANGLE · ANGLE W/HANDLE · RELIEF · 3-WAY · 3-WAY W/HANDLE · 3-WAY W/QUICK · 3-WAY RELIEF · 4-WAY · RUPTURE DISK · VALVE W/QUILL

INSTRUMENT VALVES

GATE · BALL · GLOBE · PLUG · CHECK · NEEDLE · 3-WAY · 4-WAY · BLOCK AND BLEED · VALVE MANIFOLD

X=2, 3 OR 5

VALVE ACTUATORS

DIAPHRAGM · PRESSURE TAPPED · PRESSURE SELF · PRESSURE SELF W/HAND · ROTARY MOTOR · SPRING OPPOSED SELF · DOUBLE ACTING · SOLENOID ELECTRICAL · HYDRAULIC SHUT OFF VLV · WEIGHTED LEVER

IF THE VALVE MANIPULATES A FLUID PROCESS STREAM AND IS NOT A HAND-ACTUATED, ON-OFF BLOCK VALVE, IT IS DESIGNATED AS A CONTROL VALVE (GATE VALVE BODIES ARE SHOWN). ONE OF FOUR POSSIBLE FAILURE POSITIONS MUST BE SHOWN; FC, FO, FL, FI.

FITTINGS/LINE STRAINERS

UNION · CONCENTRIC · ECCENTRIC FLAT BOTTOM · ECCENTRIC FLAT TOP · SPECTACLE OPEN · SPECTACLE CLOSED · FLANGE · ORIFICE PAIR · ORIFICE PAIR W/VALVES · ORIFICE PAIR W/VALVES TAPPED

QUICK CONNECT · BLEED RING · BLEED RING W/VALVE · SWAGE · FLEX CONNECTOR · EXPANSION JOINT · FLAME ARRESTOR · WELDED CAP · SPEC BREAK XX YY

DIAPHRAGM SEAL · HINGED CLOSURE W/VENT VALVE · DRAIN TO GRADE/GROUND · POINT OF CONNECTION · SPRAY NOZZLE · BULL PLUG · Y-STRAINER PLUGGED · T-STRAINER · TEMPERATURE STRAINER · DUPLEX STRAINER

Y-STRAINER · CLEANOUT TEE · RAIN CAP · FLAPPER CAP · OIL SEPARATOR · CHOKE NIPPLE · CUSHION TEE · PLUG · COMPRESSION COUPLING · INSULATING SET

FLOW METERS

VORTEX · FLUME · VENTURI · TURBINE · TARGET (FLOW FROM LEFT) · ULTRASONIC · POSITIVE DISPLACEMENT · MAGNETIC · PITOT (FLOW FROM LEFT) · AVG. PITOT (FLOW FROM LEFT)

SENIOR ORIFICE METER · ORIFICE METER · MAGNETIC METER · WEIR · GENERIC (SPECIFY TYPE) · ADJUSTABLE ROTAMETER · ROTAMETER

MISCELLANEOUS SYMBOLS

STRAIGHTENING VANES · MOTOR · VARIABLE SPEED DRIVE (VSD) · NOZZLE · THERMOWELL · HORN · VICTAULIC FITTING · PUMP VENT · TANK REGULATOR

DRAWING INTERCONNECTIONS

COMMODITY EQUIPMENT NUMBER / DRAWING NUMBER — COMMODITY EQUIPMENT NUMBER / DRAWING NUMBER

NOTES
1. 0.3X PIPE SPEC IS 0.3 MODIFIES TO 0.036" CORROSION ALLOWANCE FOR 2" AND 3" THREADED PIPE

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-SEP-16	ISSUED FOR HAZOP	DLM		CDT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	15-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	06-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CDT

DELIVERY MANAGER SIGNATURE — REVIEW DATE

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
LEGACY LEGEND & SYMBOLOGY SHEET

SCALE: NTS — PROJ. No: 16353

VENDOR DWG No: — REV No:

BHP BILLITON DWG No: PM7766-PX-PID-05002-01 — REV No: 02

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BHP BILLITON
HSS STATE 113-23X14-A

REV	DATE	DRAWING NO.	TITLE
04	06-JAN-17	PM7766-PX-PID-05001	DRAWING INDEX
02	26-SEP-16	PM7766-PX-PID-05002-01	LEGACY LEGEND & SYMBOLOGY SHEET
01	26-SEP-16	PM7766-PX-PID-05002-02	LEGEND & SYMBOLOGY SHEET
03	28-OCT-16	PM7766-PX-PID-05003	HSS 113 23X14 1H WELLHEAD
03	06-JAN-17	PM7766-PX-PID-05004	HSS 113 22X15 1H WELLHEAD
03	28-OCT-16	PM7766-PX-PID-05005	HSS 113 23X14 1H HP SEPARATOR
02	28-OCT-16	PM7766-PX-PID-05006	HSS 113 22X15 1H HP SEPARATOR
03	28-OCT-16	PM7766-PX-PID-05011	LP BULK SEPARATOR
03	28-OCT-16	PM7766-PX-PID-05017	FLASH GAS/GAS LIFT COMPRESSOR A
03	28-OCT-16	PM7766-PX-PID-05025	FUEL GAS SYSTEM
03	28-OCT-16	PM7766-PX-PID-05026	GAS SALES HEADER
02	28-OCT-16	PM7766-PX-PID-05030	LP FLARE BLOW CASE AND RERUN PUMP
03	28-OCT-16	PM7766-PX-PID-05031	FLARE K.O. DRUM
02	28-OCT-16	PM7766-PX-PID-05032	HP AND LP FLARE
02	28-OCT-16	PM7766-PX-PID-05037	OIL TANKS 750 BBL
02	28-OCT-16	PM7766-PX-PID-05041	PRODUCED WATER TANKS 750 BBL
03	28-OCT-16	PM7766-PX-PID-05045	METHANOL SYSTEM

NOTES

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
04	06-JAN-17	RE-ISSUED FOR CONSTRUCTION REVISED INDEX	JDL	CL	
03	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	GL
02	26-SEP-16	ISSUED FOR HAZOP	DLM		CDT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	15-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CDT

DELIVERY MANAGER SIGNATURE REVIEW DATE

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VENDOR DWG No: REV No:

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
DRAWING INDEX

BHP BILLITON DWG No: PM7766-PX-PID-05001 REV No: 04

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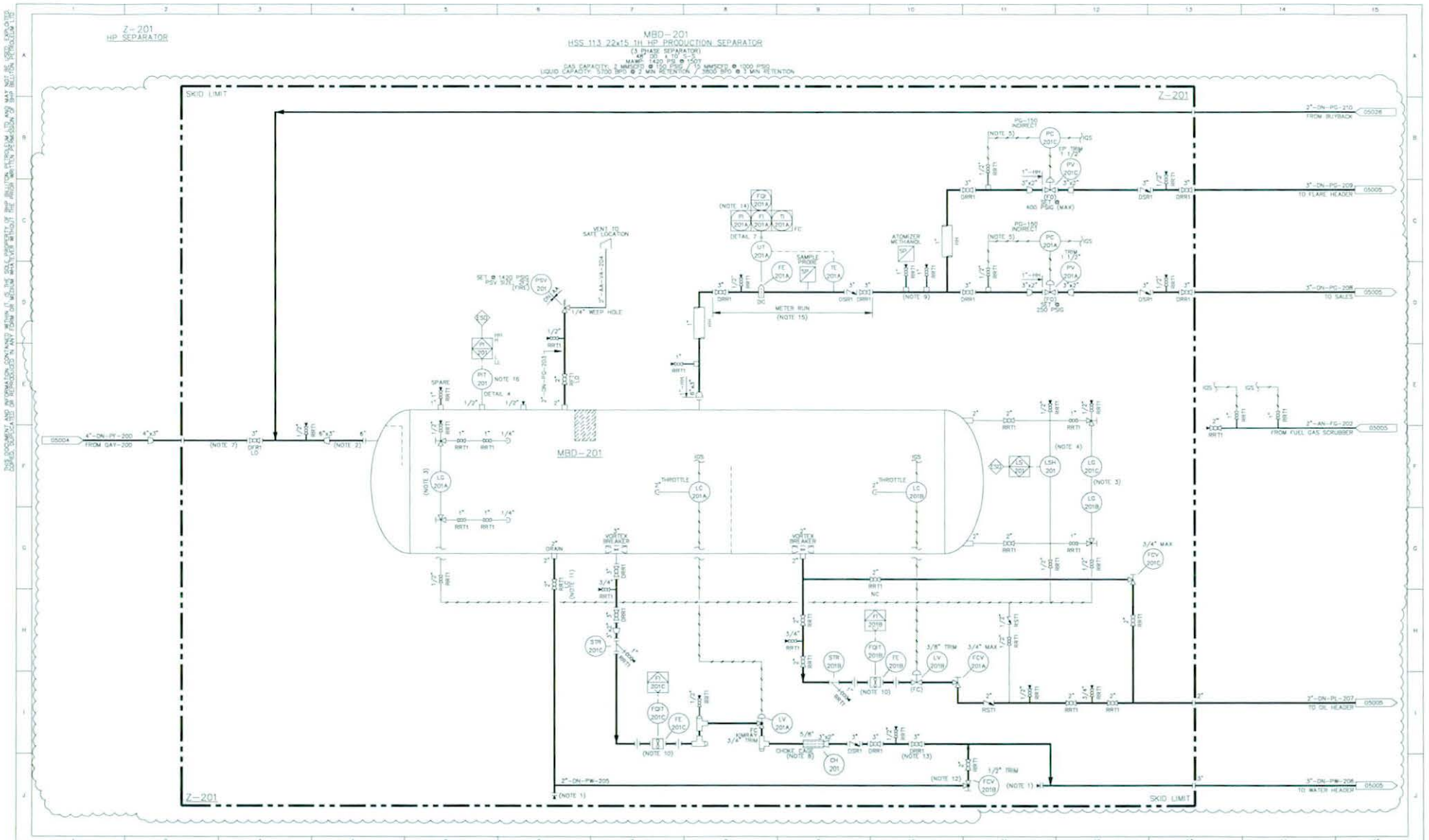

NOTES:
1. BULL PLUGS IN LOW POINT FOR SAND REMOVAL.
2. PROVIDE MINIMUM 10 DIAMETERS STRAIGHT PIPE SAME SIZE AS VESSEL INLET NOZZLE. SIDE OF LC-201A AT CENTER STEM OF LC-201A, SOME OF LC2015 AT CENTER STEM OF LC-201B, SOME AT LC-201C.
3. MOUNT LSH-201 CENTERLINE 1'-0" BELOW TOP OF VESSEL.
4. SENSE POINT MINIMUM 10 PIPE DIAMETERS AWAY FROM CONTROL VALVE. NO LOW POINTS IN SENSE LINE (SLOPE BACK TO TAP POINT)
5. DELETED
6. ON INLET PIPING ALL 90° BENDS SHALL BE CUSSION TEES.
7. MOUNT REDUCER DIRECTLY ON CHOKE CAGE. PROVIDE MINIMUM 3" STRAIGHT PIPE DOWNSTREAM OF REDUCER.
8. INJECTION POINTS TO BE FROM NEAREST TEE, BUT NO HIGHER THEN 5' OFF THE GROUND.
9. SKID FABRICATOR TO PROVIDE 1" VALVE AND PLUG ATOMIZERS BY OTHERS.
10. TO PIPE DIAMETERS UPSTREAM AND 5 PIPE DIAMETERS DOWNSTREAM OF PIPE SHALL BE PROVIDED FOR TURBINE METERS.
11. BLOCK VALVE ON WATER LEVEL CONTROL VALVE LINE MUST BE CLOSED TO UNLOCK DRAIN VALVE.
12. BLANKING CAP AND FLOW BEAN TO BE INSTALLED TO CONVERT ASSISTANCE SERVICE TO PRODUCTION CHOKE.
13. BLOCK VALVE ON WATER LEVEL CONTROL VALVE LINE MUST BE CLOSED TO UNLOCK DRAIN VALVE.
14. LOGIC IN FLOW COMPUTER FQI-201A.
15. METER RUN TO BE PROVIDED BY COMPANY. IF METER RUN IS NOT PROVIDED INCLUDE DROPOUT SPOOL FOR FUTURE METER RUN INSTALLATION.
16. REMOTE MOUNT PIT FOR ACCESS FROM SKID EDGE.

REV	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	GL
01	23-SEP-16	ISSUED FOR HAZOP	DLM		
00	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT

DELIVERY MANAGER SIGNATURE — REVIEW DATE

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
HSS 113 22X15 1H HP SEPARATOR

SCALE: NTS | PROJ. No: 16353
VENDOR DWG No: | REV No:
BHP BILLITON DWG No: PM7766-PX-PID-05006 | REV No: 02

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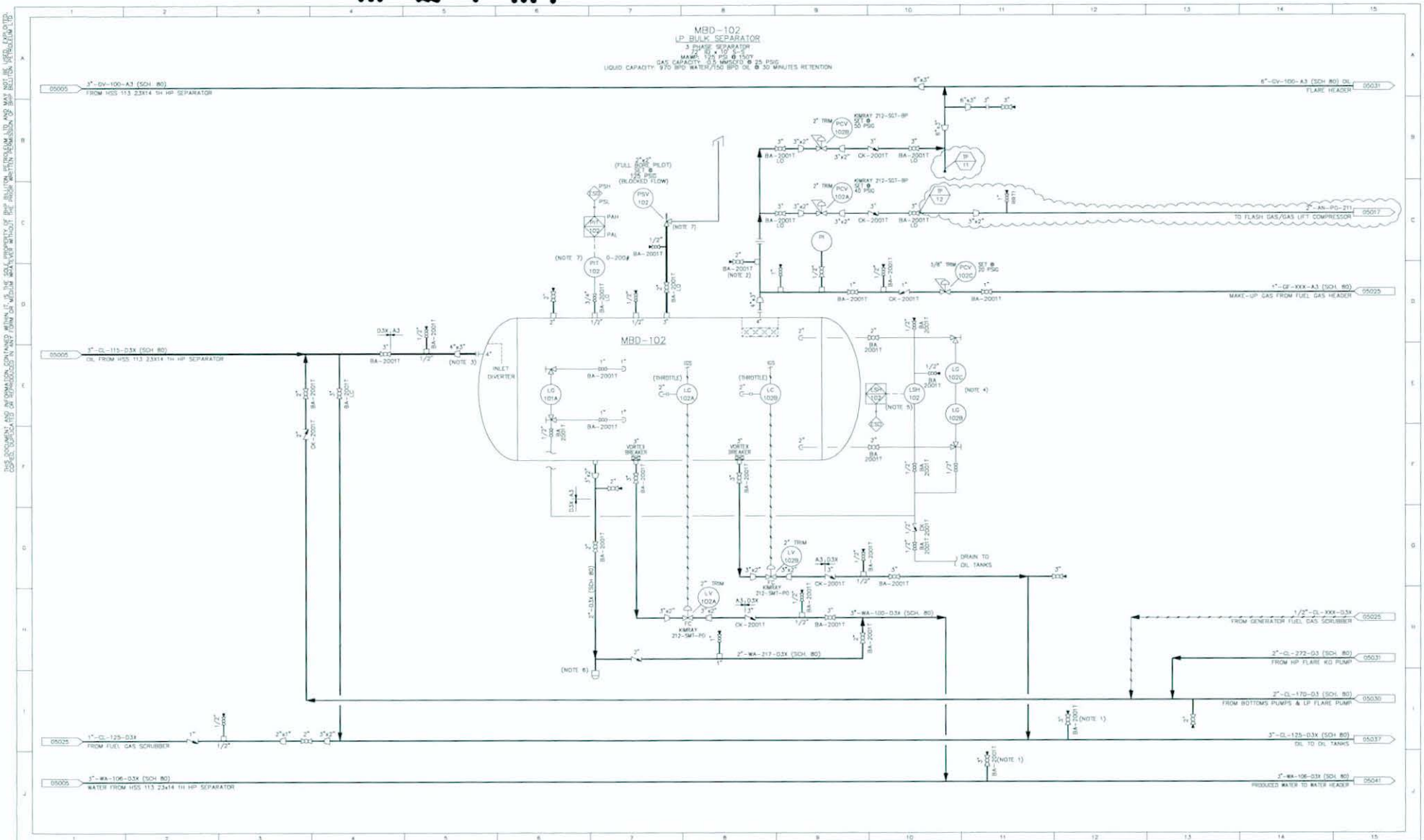

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NOTES
1. TIE-IN FOR FUTURE LP BULK SEPARATOR. DO NOT RUN PIPING PAST VALVE. (DEAD LEG)
2. FUTURE VAPOR RECOVERY UNIT DISCHARGE TIE-IN POINT.
3. PROVIDE 10 MINIMUM DIAMETERS STRAIGHT PIPE SAME SIZE AS VESSEL INLET NOZZLE.
4. LG-102A EVEN WITH LC-102A. LG-102C EVEN WITH LSH-102. LG-102B EVEN WITH LC-102B.
5. MOUNT LSH-102 CENTERLINE 14" BELOW TOP OF VESSEL.
6. BULL PLUGS IN LOW POINT FOR SAND REMOVAL.
7. ACCESSIBLE BY STAIRS

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		GL	GL
02	26-SEP-16	ISSUED FOR HAZOP	GLM		CGT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	GLM		CGT
00	15-SEP-16	AS-BUILT	RMB		CGT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	GLM		CGT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CGT

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DELIVERY MANAGER SIGNATURE — REVIEW DATE

SCALE: NTS | PROJ. No: 16353
VENDOR DWG No: | REV No:

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
LP BULK SEPARATOR

BHP BILLITON DWG No: PM7766-PX-PID-05011 | REV No: 03

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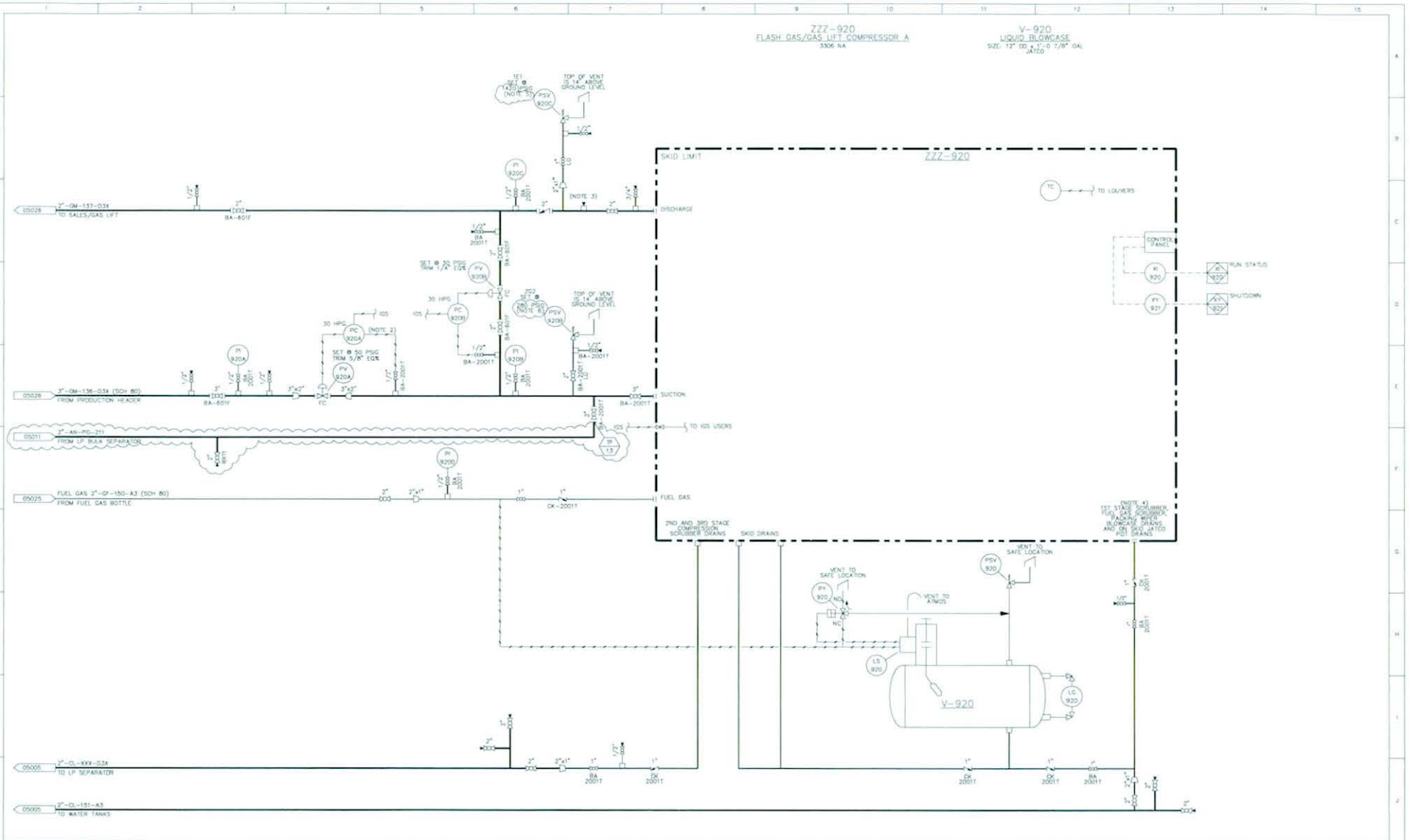

NOTES:
1. • — DESIGNATES SUPPLIED LOOSE BY VESSEL VENDOR.
2. NPTE FONT SHALL BE A MINIMUM A TO PIPE DIAMETERS AWAY FROM CONTROL VALVE.
3. PSV TO BUILT WITH 1/2" LONG THERMOWELL AND PLUG.
4. DISCONNECT FUEL GAS SCRUBBER DRAINS FROM ON-SKID DRAIN HEADER AND PIPE AS SHOWN ON DRAWING.
5. CHANGE PSV-920C SET PRESSURE TO 1420 PSIG
6. CHANGE PSV-920B SET PRESSURE TO 1480 PSIG

REV	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-18	ISSUED FOR CONSTRUCTION		CL	CL
02	26-SEP-18	ISSUED FOR HAZOP	DLM		CDT
01	23-SEP-18	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	15-SEP-18	AS-BUILT	RMB		CDT
B	14-SEP-18	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	06-SEP-18	ISSUED FOR CLIENT REVIEW	RMB		CDT

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DELIVERY MANAGER SIGNATURE
REVIEW DATE

SCALE: NTS
PROJ. No: 16351
VENDOR DWG No:
REV No:

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
FLASH GAS/GAS LIFT COMPRESSOR A

BHP BILLITON DWG No: PM7766-PX-PID-05017
REV No: 03

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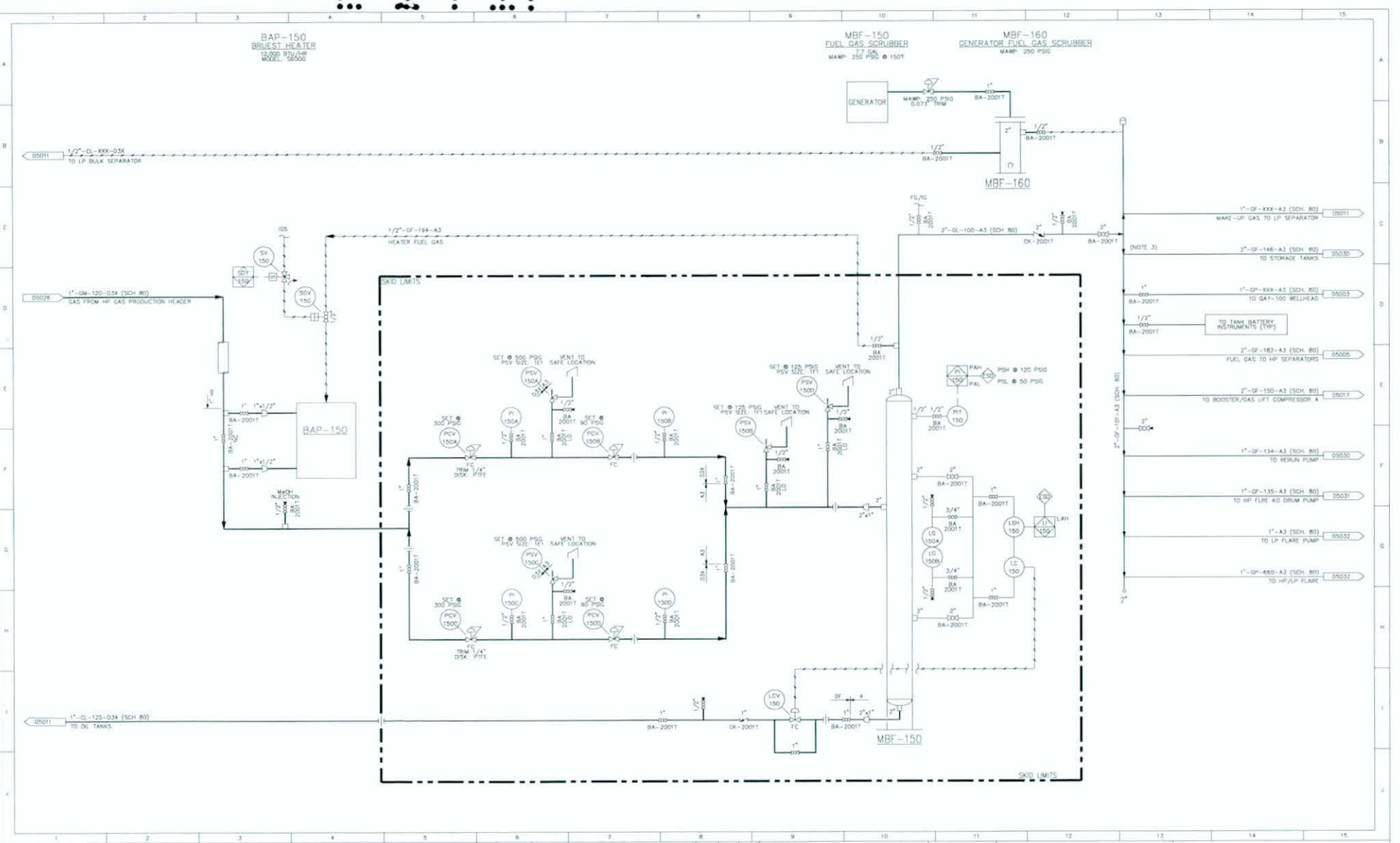

NOTES:
1. DELETED
2. DELETED
3. FUEL GAS HEADER LAYOUT NOT LITERAL LAYOUT BY CONSTRUCTION.

REV	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		GL	
02	28-SEP-16	ISSUED FOR HAZOP	DLM		CDT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CDT
00	15-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CDT

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
FUEL GAS SYSTEM

SCALE: NTS | PROJ. No: 18353

VENDOR DWG No: | REV No:

BHP BILLITON DWG No: PM7766-PX-PID-05025 | REV No: 03

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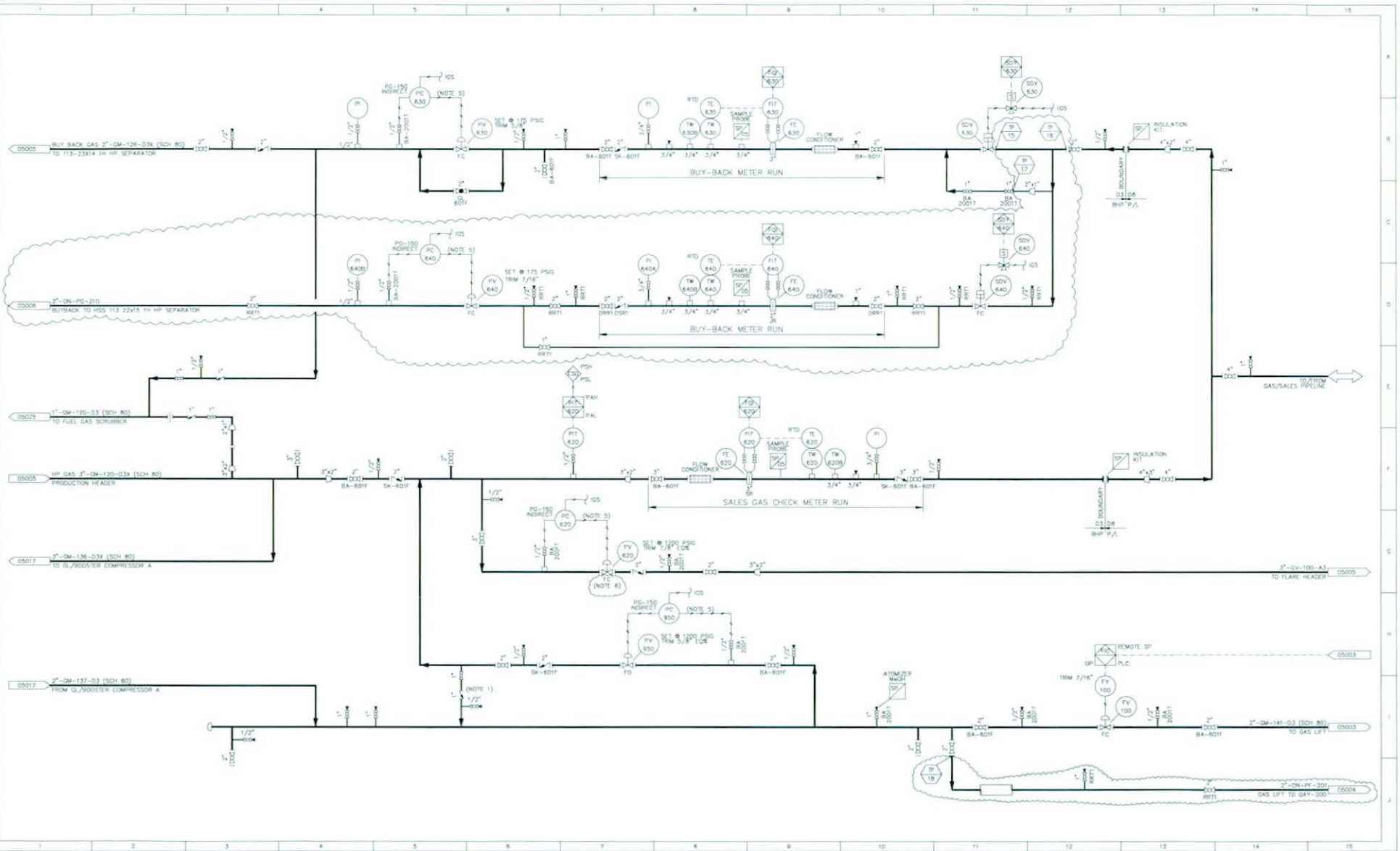

NOTES:
1. CHECK VALVE BYPASS TO ALLOW GAS TO WELL HEAD INSTRUMENTS DURING START UP AND COMP TRIP.
2. DELETED.
3. DELETED.
4. DELETED.
5. SENSE POINT MINIMUM 10 PIPE DIAMETERS AWAY FROM CONTROL VALVE NO LOW POINT IN SENSE LINE.
6. CHANGE PV-630 TO FAIL CLOSED.

REV	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		CJ.	GL
02	26-SEP-16	ISSUED FOR HAZOP	DLM		CCT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CCT
00	15-SEP-16	AS-BUILT	RMB		CCT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CCT
A	09-SEP-16	ISSUED FOR CLIENT REVIEW	DLM		CCT

BA: REVIEWED AND ACCEPTED FINAL AND CERTIFIED, WORK MAY PROCEED
RN: REVIEWED AND ACCEPTED AS NOTED REVISE AND RE-SUBMIT, WORK MAY PROCEED
RR: REJECTED, INCORPORATE COMMENTS AND UPDATE, REVISE AND RE-SUBMIT, WORK MAY NOT PROCEED
INF: REVIEW NOT REQUIRED, DO NOT RESUBMIT FOR INFORMATION ONLY

DELIVERY MANAGER SIGNATURE: REVIEW DATE:

SCALE: NTS | PROJ. No: 16351

VENDOR DWG No: | REV No:

bhpbilliton

HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
GAS SALES HEADER

BHP BILLITON DWG No: PM7766-PX-PID-05026 | REV No: 03

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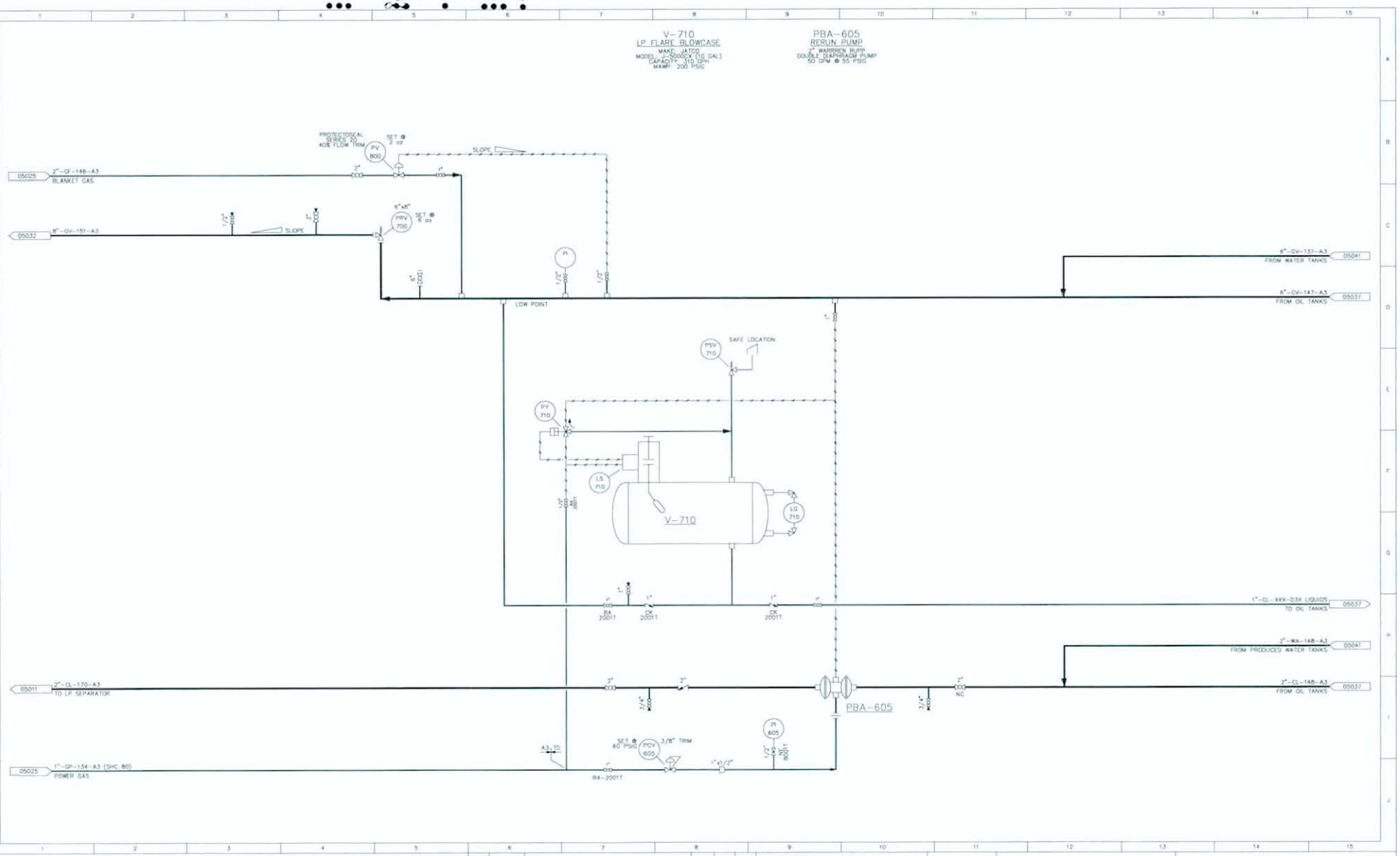
2.14.17



NOTES

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	CL
01	26-SEP-16	ISSUED FOR HAZOP	DLM		CGT
00	15-SEP-16	AS-BUILT	RMB		CGT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CGT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CGT

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
LP FLARE BLOW CASE
AND RERUN PUMP

SCALE: NTS | PROJ. No: 16353
VENDOR DWG No: | REV No:
BHP BILLITON DWG No: PM7766-PX-PID-05030 | REV No: 02

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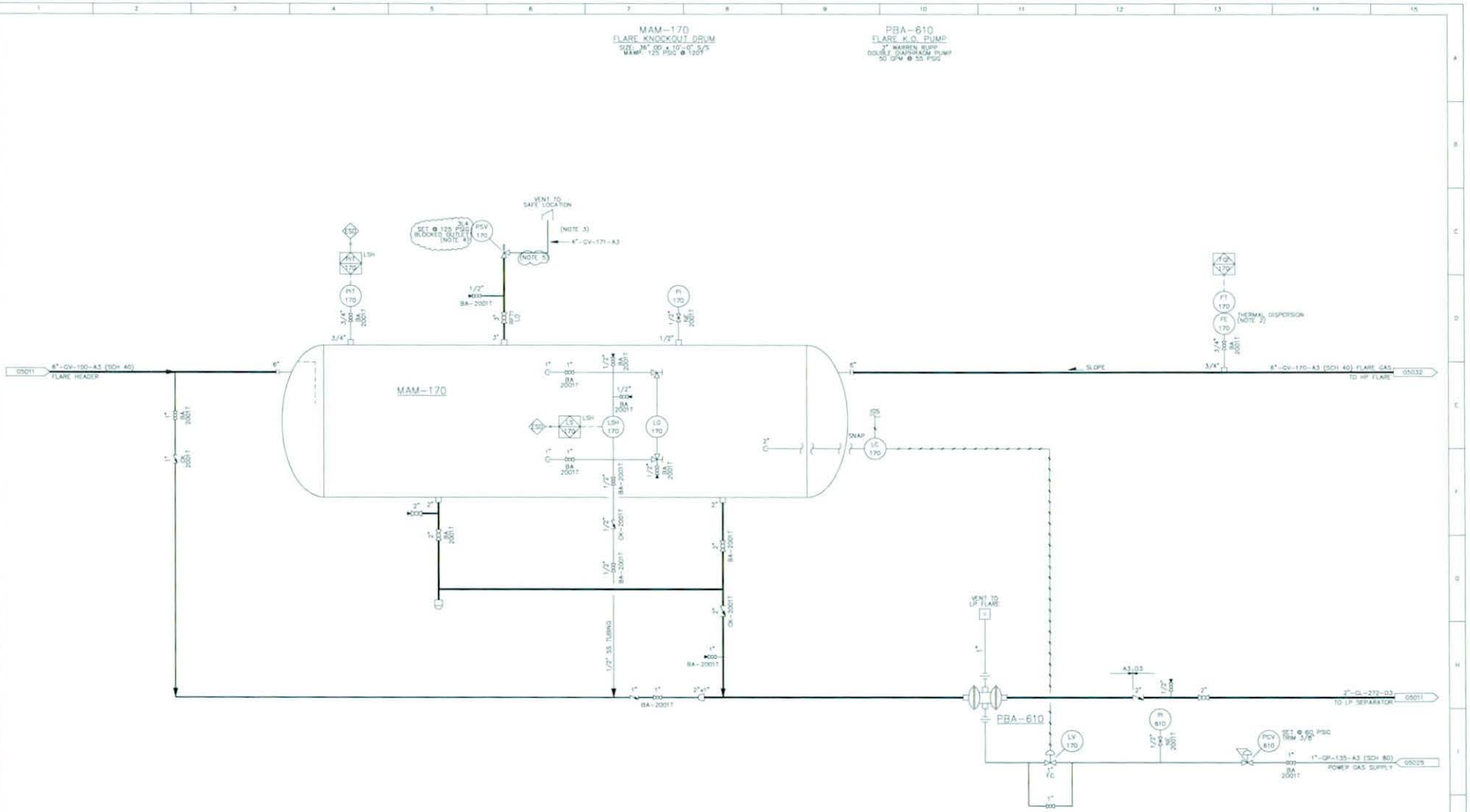

NOTES
1. DELETED.
2. INSTALL 3/4" THREAD-O-LET W/FULL PORT BALL VALVE WITH MINIMUM 1% DIAMETERS STRAIGHT LENGTH UPSTREAM & 10 DIAMETERS STRAIGHT LENGTH DOWNSTREAM OF METER. TO BE UNDER A MINIMUM OF 1% ABOVE GRADE.
3. CHANGE PSV-170 SET PRESSURE TO 125 PSIG.
4. ADD 1/4" WEEP HOLE

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	CL
02	26-SEP-16	ISSUED FOR HAZOP	DLM		CCT
01	21-SEP-16	ISSUED FOR HAZOP CHECK PRINT	DLM		CCT
00	05-SEP-16	AS-BUILT	RMB		CCT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CCT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CCT

RA: ☐ REVIEWED AND ACCEPTED FINAL AND CERTIFIED, WORK MAY PROCEED
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DELIVERY MANAGER SIGNATURE REVIEW DATE

SCALE: NTS PROJ. No: 16353
VENDOR DWG No: REV No:

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
FLARE K.O. DRUM

BHP BILLITON DWG No: PM7766-PX-PID-05031 REV No: 03

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ZZZ-641
HP FLARE STACK
SIZE: 42"
H.P. CAPACITY: 8 MMSCFD

ZZZ-640
LP FLARE STACK
SIZE: 20"
L.P. CAPACITY: 700 MSCFD

PBA-660
FLARE BOTTOMS PUMP
SIZE: 1" WARREN PUMP
DOUBLE DIAPHRAM
50 GPM @ 55 PSIG

IGNITOR HEAD
IE 641
HIGH VOLTAGE WIRE
MAIN FLARE CONTROL PANEL NEMA 4 (BY VENDOR)
BATTERY
6" ECCENTRIC
DA 641A
PI 641A
PI 641B
6"-150#
BY VENDOR
05031 6"-DV-170-A3 (SCH. 40) FLARE GAS FROM FLARE K.O. DRUM
SLOPE
PI 641
1/2" NEC-2001T
PCV 641 SET @ 15 PSIG 3/8" TRIM
05025 1"-GP-660-A3 (SCH. 80) POWER GAS SUPPLY
1" BA-2001T
STR-100
1/2" BA-2001T
1" BA-2001T
ZZZ-641
IGNITOR HEAD
IE 640
HIGH VOLTAGE WIRE
DA 640B
6" ECCENTRIC
6"-150#
PI 640A
PI 640B
BY VENDOR
05030 6"-DV-151-A3 (SCH. 40) FLARE GAS FROM STORAGE TANKS
SLOPE
1" BA-2001T
1/2" BA-2001T
LS 640
LV 660
FT 660
BA-2001T
PI 660
1/2" BA-2001T
PCV 660 SET @ 60 PSIG 3/8" TRIM
1"-GP-135-A3 (SCH. 80) FROM FUEL GAS HEADER 05025
2" BA-2001T
2"x1" BA-2001T
2" BA-2001T
PBA-660
1" CK-2001T
1/2" BA-2001T
2" BA-2001T
2"-A3 (SCH. 80) OIL/CONSENSATE TO LP BULK SEPARATOR 05011
V VENT TO LP FLARE 1"

NOTES:
1. * DESIGNATES SUPPLIED LOOSE BY VENDOR.

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	GL
01	26-SEP-16	ISSUED FOR HAZOP	DLM		CGT
00	15-SEP-16	AS-BUILT	RMB		CGT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CGT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CGT

DELIVERY MANAGER SIGNATURE REVIEW DATE

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SCALE: NTS PROJ. No: 14353
VENDOR DWG No: REV No:

bhpbilliton

HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
HP AND LP FLARE

BHP BILLITON DWG No: PM7766-PX-PID-05032 REV No: 02

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5-IN-15

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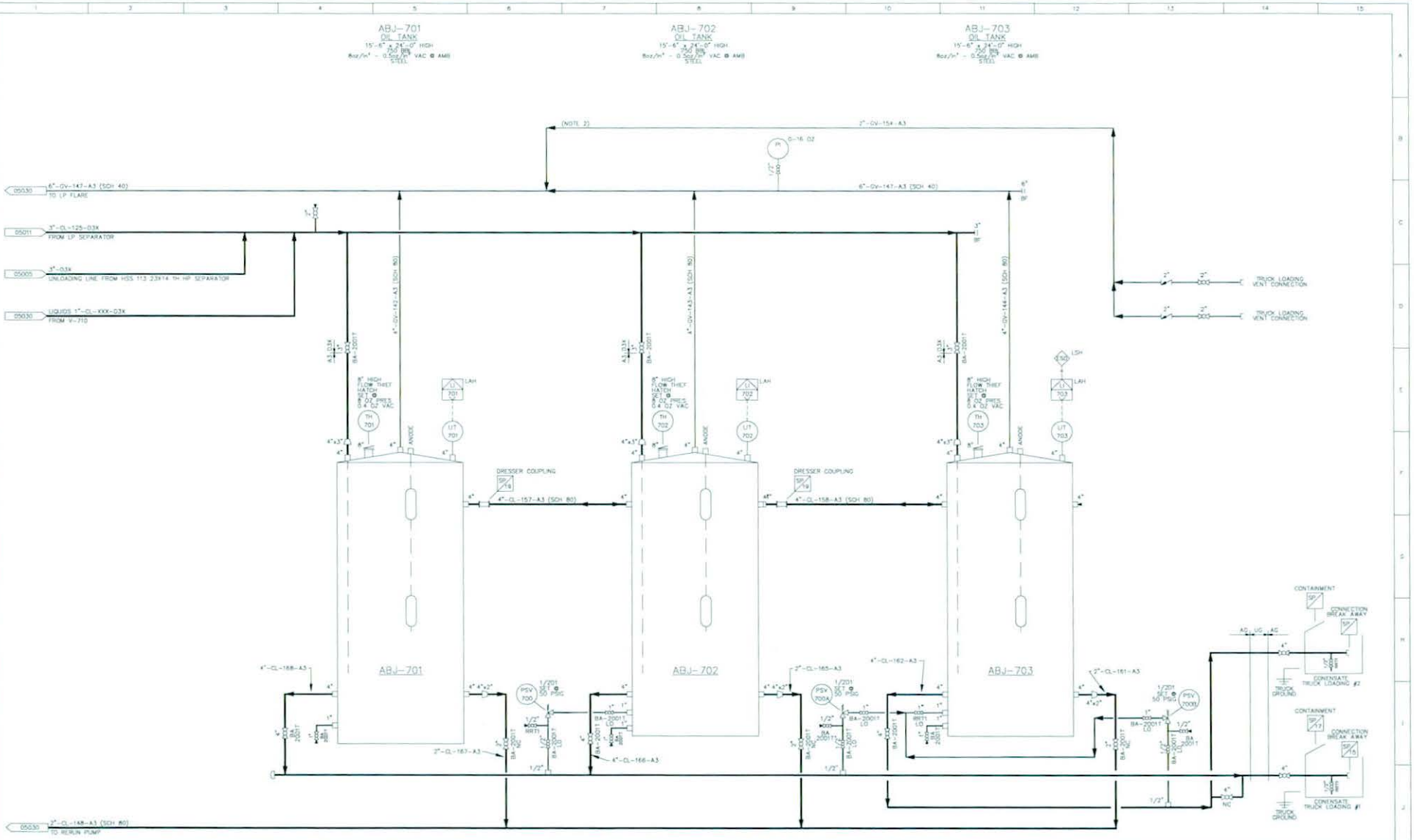

NOTES:
1. LOCATE FOR EASY ACCESS FROM WALKWAY.
2. CONNECT ON TOP OF PIPE BETWEEN ABJ-701 AND ABJ-702.
3. DELETED.
4. INSTALL INSIDE OF CONTAINMENT.
5. CAN ALSO BE CONNECTED DOWNSTREAM OF PRV-700.

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	GL
01	26-SEP-16	ISSUED FOR HAZOP	DLM		CGT
00	15-SEP-16	AS-BUILT	RMB		CGT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CGT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CGT

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DELIVERY MANAGER SIGNATURE REVIEW DATE

SCALE: NTS | PROJ. No: 14355 | REV No:
VENDOR DWG No:

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
OIL TANKS
750 BBL

BHP BILLITON DWG No: PM7766-PX-PID-05037
REV No: 02

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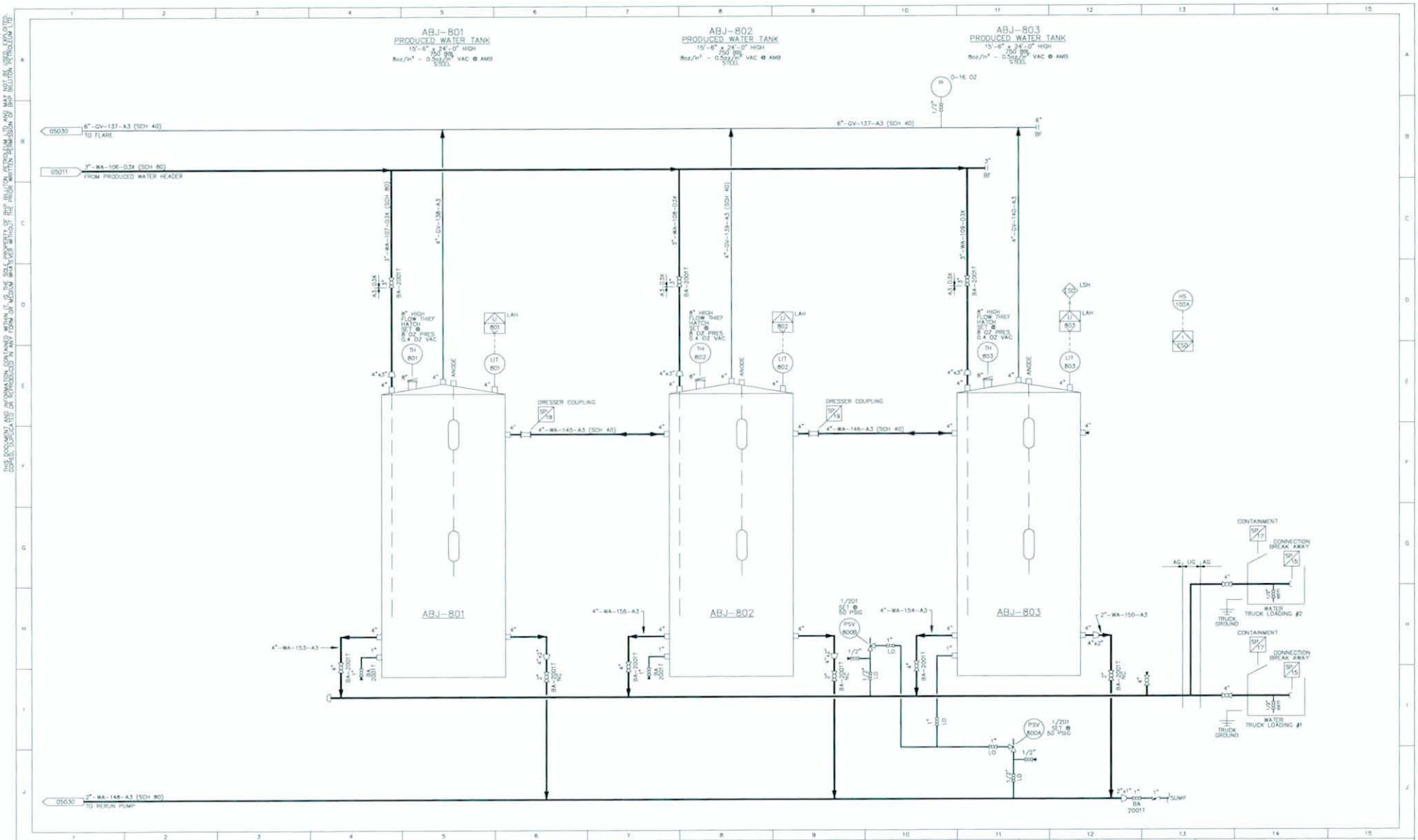

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NOTES
1. LOCATE FOR EASY ACCESS FROM WALKWAY.

REV.	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
02	28-OCT-16	ISSUED FOR CONSTRUCTION		CL	DL
01	26-SEP-16	ISSUED FOR HAZOP	DLM		CDT
00	15-SEP-16	AS-BUILT	RMB		CDT
B	14-SEP-16	ISSUED FOR AS-BUILT REVIEW	DLM		CDT
A	08-SEP-16	ISSUED FOR CLIENT REVIEW	RMB		CDT

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DELIVERY MANAGER SIGNATURE — REVIEW DATE

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
PRODUCED WATER TANKS
750 BBL

SCALE: NTS	PROJ. No: 16353	REV No:
VENDOR DWG No:		
BHP BILLITON DWG No: PM7766-PX-PID-05041		REV No: 02

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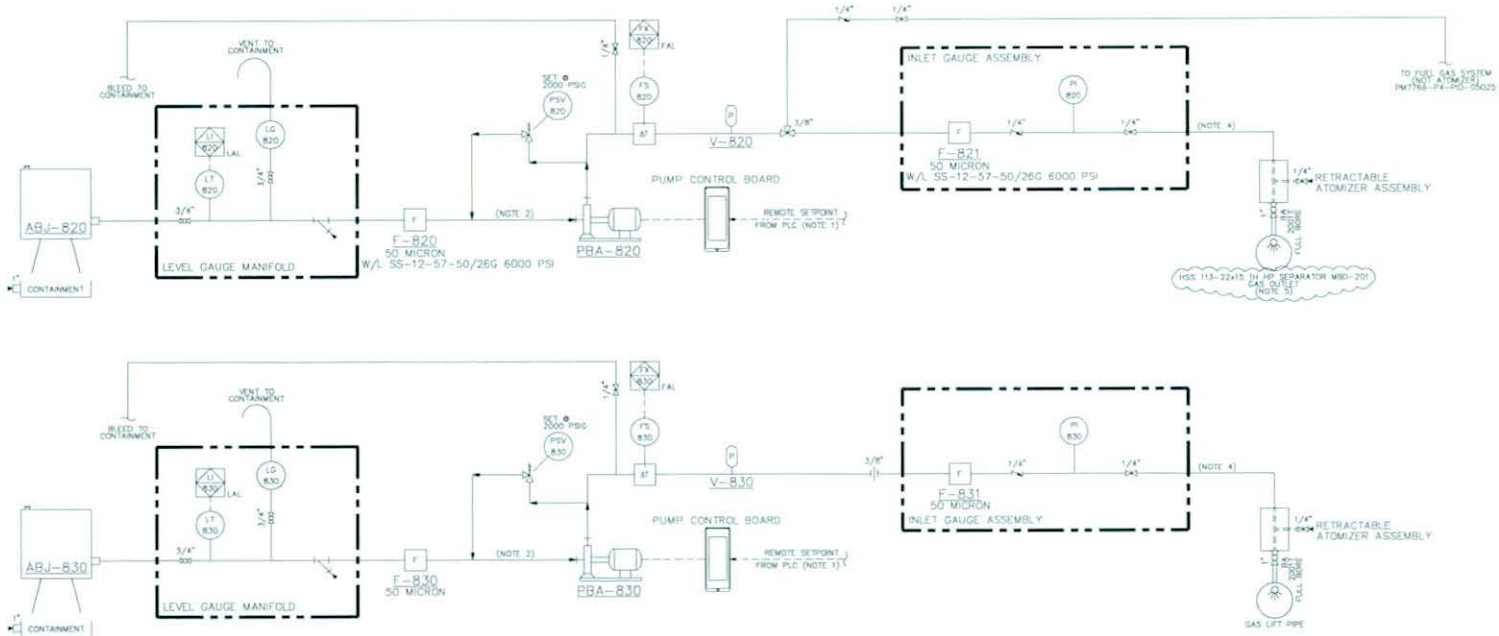
ABJ-820
METHANOL TANK
SIZE: 500 GAL
(PROVIDED BY CHEMICAL VENDOR)

ABJ-830
METHANOL TANK
SIZE: 500 GAL
(PROVIDED BY CHEMICAL VENDOR)

PBA-820
METHANOL PUMP
MAKE: TXMA
PLUNGER: 3/8"
NORMAL FLOWRATE: 5-70 GPD

PBA-830
METHANOL PUMP
MAKE: TXMA
PLUNGER: 3/8"
NORMAL FLOWRATE: 5-70 GPD

V-820/V-830
PULSATION DAMPENER
500 PSIG PRECHARGE



NOTES
1. FORCE PUMP TO ZERO FLOW ON ESD. AUTOMATICALLY RESTART AT LAST KNOWN FLOWRATE AFTER ESD CLEARS.
2. MOUNT PUMP INLET BELOW TANK OUTLET.
3. ISOLATED.
4. LEAVE 4" OF VERTICAL CLEARANCE ABOVE ATOMIZER FOR REMOVAL TOOL ACCESS.
5. RELOCATE HSS 113-22x14 1H HP SEPARATOR MID-20' INJECTION TO HSS 113-22x15 1H HP SEPARATOR

REV	DATE	REVISION - DESCRIPTION	BY	CHK'D	APP'D
03	26-OCT-18	ISSUED FOR CONSTRUCTION		GL	GL
02	26-SEP-18	ISSUED FOR HAZOP	DLM		CGT
01	21-SEP-18	ISSUED FOR HAZOP CHECK PRINT	DLM		CGT
00	13-SEP-18	AS-BUILT	RMB		CGT
B	14-SEP-18	ISSUED FOR AS-BUILT REVIEW	DLM		CGT
A	06-SEP-18	ISSUED FOR CLIENT REVIEW	RMB		CGT

DELIVERY MANAGER SIGNATURE / REVIEW DATE

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HSS STATE 113-23X14-A
PIPING & INSTRUMENTATION DIAGRAM
METHANOL SYSTEM

SCALE: NTS | PROJ. No: 16353 | VENDOR DWG No: | REV No:

BHP BILLITON DWG No: PM7766-PX-PID-05045 | REV No: 03

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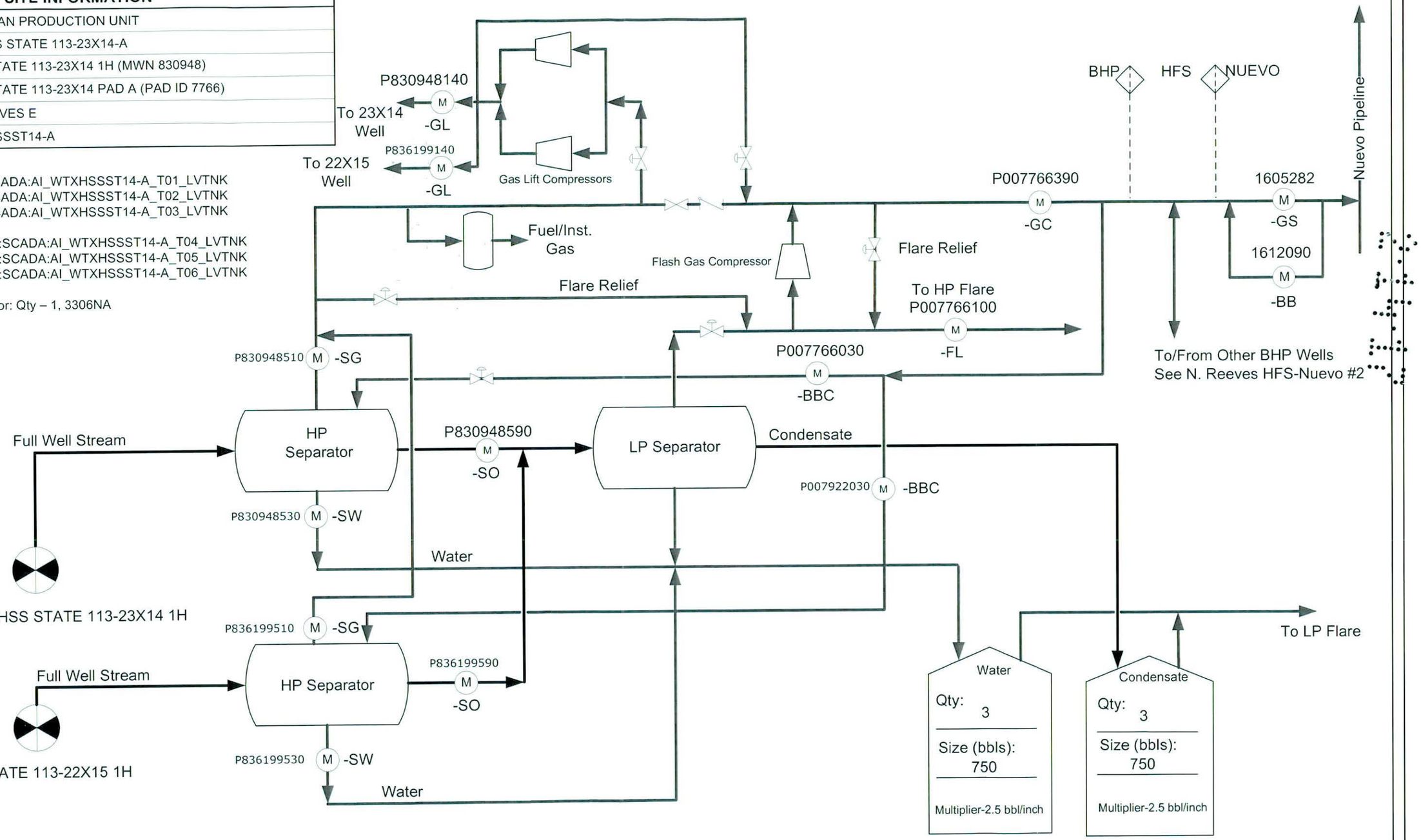
SITE INFORMATION	
Production Unit	PERMIAN PRODUCTION UNIT
Facility name	TB-HSS STATE 113-23X14-A
Well name	HSS STATE 113-23X14 1H (MWN 830948)
Pad name	HSS STATE 113-23X14 PAD A (PAD ID 7766)
Route	N. REEVES E
SCADA Tag	WTXHSSST14-A

Oil Tank 1: PerPU:SCADA:AI_WTXHSSST14-A_T01_LVTNK
Oil Tank 2: PerPU:SCADA:AI_WTXHSSST14-A_T02_LVTNK
Oil Tank 3: PerPU:SCADA:AI_WTXHSSST14-A_T03_LVTNK

Water Tank 1: PerPU:SCADA:AI_WTXHSSST14-A_T04_LVTNK
Water Tank 2: PerPU:SCADA:AI_WTXHSSST14-A_T05_LVTNK
Water Tank 3: PerPU:SCADA:AI_WTXHSSST14-A_T06_LVTNK

Flash Gas Compressor: Qty – 1, 3306NA



LEGEND

Gas
Oil
Water

Multiplier = (Total number of barrels per tank)/(Height in inches)

SIGNATURES

TEAM	SIGNATURE	DATE
SURFACE ENG.	EAK	6/24/15
ALLOCATIONS		
PRODUCTION ENG.		

REVISIONS

REV.	DESCRIPTION	BY	CHK	APP	DATE
4	UPDATED METERING FOR FACILITY EXPANSION				
3	UPDATED OIL METER OFF OF HP SEPARATOR FOR IWP.	EAL		EAL	01/18/16
2	UPDATED SCADA TAGS, FLARE METER NUMBER, TANK MULTIPLIER, AND BUYBACK SYSTEM.	EAL		EAL	09/28/15
1	UPDATED PER CONTROLLED DOCUMENT TEMPLATE.	EAK	LTI	EAK	06/24/15
0	SEE SURFACE ENGINEERING eROOM FOR PREVIOUS REV.				

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resourcing the future

DWG Name: Allocation Flow Diagram
TB-HSS STATE 113-23X14-A

DWG. No. : P7766-PX-AFD-0001
Rev. : 3
Date: 01/05/17

34

File No. MF113061

CULBERSON County

REQUEST TO COMMINGLE

Date Filed: 3/30/17

George P. Bush, Commissioner

By MT SCOTT

Matthew Scott

From: Vail, Nicole <Nicole.Vail@bhpbilliton.com>
Sent: Thursday, March 09, 2017 2:48 PM
To: Matthew Scott
Subject: RE: HSS 113-24 and HSS 113-23 Commingling applications.
Attachments: GLO_Commingle Lease Table_HS STATE 113-22X15 1H.xlsx

See attached.

From: Matthew Scott [mailto:Matthew.Scott@GLO.TEXAS.GOV]
Sent: Monday, February 27, 2017 2:29 PM
To: Vail, Nicole <Nicole.Vail@bhpbilliton.com>
Subject: HSS 113-24 and HSS 113-23 Commingling applications.

Nicole

I am reviewing the commingling applications for the two subject facilities. Please find attached the GLO Lease Lists for each facility. The GLO Lease List for the HSS State 113 requires revision per the notes on the attachment. You can revise your original and send me an electronic version.

Please be advised that commingling occurs at each facility and gas lift occurs at each facility. The Lessee has to obtain permission, per the lease and TAC rules when gas lift and/or gas recycle is used on leases such as RAL, Fee Leases, and river tract. These are RALs.

At the HSS State 113-23X14 Unit, GLO Unit 7505, gas wells on the same unit are commingled into common storage thus a P-17 is required, and the gas lift is/may be commingled with the lease production of gas due to the buy-back meters (off-lease gas). Since gas lift is used then permission is required for that also.

At the HS State 113-24 facility two separate units/leases are commingled into common storage, thus a P-17 is required, and off-lease gas is used for the gas lift supply, another commingling problem and requirement to obtain permission. The off-lease lift gas supply affects the liquids value of any lease and that is the commingling issue.

In addition, please make sure you provide 3 copies each of each commingling document submitted to the GLO per the procedure.

Please revise the GLO Lease List and be aware of gas lift installations in the future so as to add gas to the scope of the request to commingle production.

Thanks,

Matthew

Matthew T. Scott, P.E.
Petroleum Engineer
Texas General Land Office
1700 N. Congress
Energy Resources
Room 840
Austin, TX 78701

512-475-2230 Office
512-475-1404 Fax
Matthew.Scott@glo.texas.gov

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ATTACHMENT NO. 2

Commingle Permit Applicant:
RRC District: 08
RRC Form P-17 Permit No.: 7840
RRC P-17 Application Date: 2/9/17

REPORTS OIL PRODUCTION ON FORM PR AND EACH STATE LEASE IS EQUIPPED WITH AN OIL AND GAS SEPARATOR WITH OIL AND GAS SEPARATELY METERED BEFORE COMMINGLING WITH OTHER LEASES.

					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2
P-17 RRC Request Status	Lease Commingle Facility Name	RRC Field Name	RRC Lease Name	RRC Well No.	RRC Lease/ID No.	Wellbore 10 Digit API No.	RRC Lease Form P4 Operator	RRC Lease Type (Oil/Gas)	RRC Well Status	State Mineral Lease No.	GLO or Private Unit Name (If Unitized)	GLO Unit No.	State Mineral Lease or Unit Net Royalty Interest
Add	HSS State 113-23x14 1H	Phantom (Wolfcamp)	HSS State 113-23x14	1H	278957	109-32850	BHP Biliton Pet (TXLA OP) Co	GAS	ACTIVE	MF113061 MF113603 MF115984 MF116836	HSS STATE 113-23X14	7505	0.125000
Add	HS State 113-22x15 1H	Phantom (Wolfcamp)	HS State 113-22x15	1H	DP#819939	109-33016	BHP Biliton Pet (TXLA OP) Co	GAS	ACTIVE	MF113061 MF113603 MF115984 MF116836	HSS STATE 113-23X14	7505	0.125000
					SEE NOTE 3					SEE NOTE 1			SEE NOTE 2

NOTES:

1. ENTER THE STATE MINERAL LEASE NUMBER WHERE THE PRODUCTIVE FIELD INTERVAL OF THE WELL IS LOCATED WITHIN THE PHYSICAL BOUNDARY OF THE LEASE.
   IF, DUE TO DEPTH LIMITATIONS, SEVERAL LEASES EXIST WITHIN A COMMON WELLBORE, THEN ENTER THE MINERAL LEASE NUMBER FOR THE PRODUCING FIELD INTERVAL.
   IF THE WELLBORE OF A HORIZONTAL WELL OR DIRECTIONAL WELL TRAVERSES MULTIPLE STATE MINERAL LEASES THEN ENTER EACH STATE MINERAL LEASE ASSOCIATED WITH THE PRODUCING FIELD INTERVAL IN ORDER FROM THE HEAL (FIRST TAKE POINT) TO THE TOE (LAST TAKE POINT) OF THE WELL AND ENTER THE GLO UNIT NAME, NUMBER, AND UNIT NRI IN THE APPROPRIATE COLUMNS.

2. ENTER THE STATE MINERAL LEASE INTEREST UNLESS THE WELL IS ASSOCIATED WITH A GLO POOLED UNIT THEN ENTER THE POOLED UNIT NET ROYALTY INTEREST.

3. IF RRC LEASE ID PENDING ASSIGNMENT THEN ENTER "DP" FOLLOWED BY THE RRC DRILLING PERMIT NO. FOR THE COMPLETED INTERVAL.

35

File No. MF113061

CULBERSON County

REVISED GLO LEASE LIST

Date Filed: 3/30/17

George P. Bush, Commissioner

By MT SCOTT

bhpbilliton
resourcing the future

Tel 713-983-2508
Fax 713-966-2925
www.bhpbilliton.com

February 28, 2017

Texas General Land Office
Attn: Matthew T. Scott, P.E.
P.O. Box 12873
Austin, TX 78711-2873

Re: BHP Billiton Pet (TXLA OP) Co (068596)
Request for Surface Commingling Authority - 31 TAC 9.35(a)(3)
HSS State 113-23x14 1H/HSS State 113-22x15 1H
Culberson County, Texas

Mr Scott:

Please see below revision to the original application cover letter submitted on February 13, 2017. BHP Billiton Pet (TXLA OP) Co, (BHP), is currently completing our second well within the HSS State 113-23x14 pad lease.

Upon completion, BHP is requesting permission to surface commingle production from the individual wells referenced above. Please see attachment for detailed information on each well.

We are also requesting to commingle different units into common storage. As well as request permission to utilize gas lift at each well and utilize buy back.

Also attached are three (3) copies of the approved Railroad Commission of Texas, Form P-17, Application for Exception to SWR 26 and/or 27. The other required documentation has already been submitted.

Should you have any questions or require additional information, please email me at Nicole.Vail@bhpbilliton.com or phone (713) 499-5391.

Respectfully,
BHP Billiton Pet (TXLA OP) Co.

Nicole Vail
Regulatory Specialist

bhpbilliton
resourcing the future

RAILROAD COMMISSION OF TEXAS

1701 N. Congress
P.O. Box 12967
Austin, Texas 78711-2967

APPLICATION FOR EXCEPTION TO STATEWIDE RULES (SWR) 26 AND/OR 27

Form P-17
Rev. 04/2015

313284?

☒ New
☐ Amended Existing Permit No.____
Effective Month/Year of Requested Exception: 2 / 2017
District 08
County CULBERSON

SECTION 1. OPERATOR INFORMATION

Operator Name: BHP BILLITON PET (TXLA OP) CO | Operator P-5 No.: 068596

Operator Address: 1360 POST OAK BLVD STE 150 HOUSTON, TX 77056

SECTION 2. GATHERER (of oil or condensate) INFORMATION (not required if 3b is checked)

Gatherer Name: ENTERPRISE CRUDE OIL LLC | Gatherer P-5 No.: 253117

Gatherer Address:

Gatherer E-mail Address:
(Optional – If provided, e-mail address will become part of this public record.)

SECTION 3. APPLICATION APPLIES TO (CHECK ALL THAT APPLY): ☐ OIL ☐ CASINGHEAD GAS ☐ GAS WELL GAS ☒ CONDENSATE

a) ☐ Gas well full well stream into common separation and storage facility with liquids reported on Form PR.
b) ☐ Gas well full well stream into a gasoline plant/common separation and storage facility with liquids reported on Form R-3 Serial #_____ (If full well stream is checked, the results of periodic tests to determine the number of stock tank barrels of liquid hydrocarbons recovered per 1,000 standard cubic feet of gas must be reported on Form G-10 in accordance with SWR 55. Attach an explanation of any exceptions to SWR 55.)
c) ☐ Condensate and low-pressure Gas Well Gas are commingled into low-pressure separation and storage facilities.
d) ☐ This request is for off lease: ☐ Storage ☐ Separation ☐ Metering
e) ☒ This exception is for common storage.
f) ☒ This exception is for common separation.
g) ☐ This exception is for casinghead gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____
h) ☐ This exception is for gas well gas metering by: ☐ Deduct Metering ☐ Allocation by well test ☐ Other_____

SECTION 4. NOTICE REQUIREMENTS AND ALLOCATION METHOD. (CHECK ALL THAT APPLY)
The following questions determine if 21-day notice is required and applies to all wells proposed for commingling:

a) ☒ The production is measured separately from all leases or individual wells before commingling. (*Notice not required; Skip to Section 5*)
b) ☐ The royalty interests and working interests are the same with respect to identity and percentage. (*Notice not required*)
c) ☐ The royalty interests and working interests are not the same with respect to identity and percentage. (*Notice required*)
If b. or c. checked, production will be allocated by: ☐ W-10 (oil) ☐ W-2 retest (oil) ☐ PD Meter (oil & condensate) ☐ G-10 (gas)
d) ☐ The wells produce from multiple reservoirs. (*Notice required unless 4e. or 4f. apply; see instructions for additional requirements*)
e) ☐ The wells produce from multiple reservoirs and have SWR10 exceptions. (*Notice not required*)
f) ☐ The wells produce from multiple reservoirs and are measured separately from each reservoir. (*Notice not required*)
g) ☐ Any one of the wells proposed for commingling produces from a Commission-designated reservoir for which special field rules have been adopted. (*Notice required*)

SECTION 5. ☐ **Wells proposed for commingling have an operator's name other than the applicant listed in SECTION 1.** *(See instructions)*

SECTION 6. ☐ **For oil production, the production from all oil wells on each oil lease is to be commingled.** *(See instructions)*

SECTION 7. IDENTIFY LEASES AS SHOWN ON COMMISSION RECORDS (attach additional pages as needed)

DISTRICT	RRC IDENTIFIER	ACTION	LEASE AND FIELD NAME	WELL NO.
08	DP 805458	☐ Existing ☒ Add ☐ Delete	HSS State 113-23x14	1H
08	DP 819939	☐ Existing ☒ Add ☐ Delete	HS State 113-22x15	1H
		☐ Existing ☐ Add ☐ Delete		
		☐ Existing ☐ Add ☐ Delete		

ATTACH ADDITIONAL PAGES AS NEEDED. ☒ No additional pages ☐ Additional pages ____ (# of additional pages)

FEE: $150 Filing Fee + $225 Surcharge = $375 total remittance required (See Statewide Rule 78)

CERTIFICATE: I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete to be the best of my knowledge. I certify that all requests for related required approvals from other affected state agencies have been submitted and that I understand that any authorization granted by Commission approval of this application is contingent upon the approvals from other affected state agencies being obtained.

Signature Vail, Nicole Title Regulatory Specialist Date 02/09/2017

Operator E-mail Address: permreg@bhpbilliton.com Operator Phone No. _____
(Optional – If provided, e-mail address will become part of this public record.)

RRC USE ONLY

Commingling Permit No. 7840 **Approval date:** 2/21/17 **Approved by:** Debra Williams

(36)

File No. MF113061

CULBERSON County

REVI REQUEST TO COMMINGLE

Date Filed: 3/30/17

George P. Bush, Commissioner

By MTSCOTT

3-9-17

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

March 22, 2017 Certified Mail: 7016 2070 0000 7391 7932

Ms. Nicole Vail
Regulatory Analyst
BHP Billiton Pet (TXLA OP) Co.
1360 Post Oak Blvd.
Suite 150
Houston, Texas 77056 3020

RE: Your Application Dated 2/28/17 for Authority to Surface Commingle Oil and Gas Production from the HSS State 113-23x14 and HS State 113-22x15 Leases, State RAL Mineral Leases MF113061, MF113603, MF115984, and MF116836, the HSS State 113-23x14 Unit, GLO Unit 7505, RRC Commingling Permit 08-7840, Culberson County, Texas.

Dear Ms. Vail:

Please reference your letters dated 2/1/2017 and 2/28/2017, and email dated 3/9/2017, where you requested permission to commingle state lease production and advised that the commingling permit is required due to the commingling of condensate/oil from RRC designated gas leases into common storage at the HSS State 113-23x14 1H Tank Battery. In addition, pursuant to the terms of the state's lease, you requested permission to utilize on-lease gas lift and to utilize and commingle with off-lease sources of gas for gas lift supply purposes. The oil production from GLO Unit 7505 is not commingled with the production from any other lease tract.

As shown by the process flow diagram the production from each lease/unit well is separated, metered, and then further treated/processed for sale and/or disposal at the HSS State 113-23x14 1H Tank Battery. The available for sale gas produced at the tank battery/facility is either: a) measured prior to transfer into a common gas gathering system and/or b) the gas is used to supply gas lift to the unit wells. Gas buy-back meters are provided at the facility to allow for the buy-back of gas volumes for gas lift start-up, make-up, and fuel gas supply purposes. The purpose of the RRC Form P-17 commingling permit is to allow for the oil from multiple RRC gas leases to be commingled into a common storage. The state's net royalty interest is the same for all RRC leases in the scope of the commingling permit since all wells are included in the same unit.

In this specific case, per the conditions of commingling below, the production royalty shall be due based on (1) the gross or total stock tank barrels of oil produced monthly by the state lease/unit, (2) the gross or total MMBTUs of gas produced by each lease/unit that is processed in a plant to recover natural gas liquids, and (3) any non-sales dispositions of gas.

Absent any details regarding the gas gathering system and the methodology used to determine the royalty due amounts for gas please be advised that GLO staff might disagree with your report of royalty and/or allocation methodology in the context of an audit.

Please be advised that the subject application is approved **subject to the following conditions**.

1. All oil production royalties shall be due based on the gross oil production of GLO Unit 7505. In this specific case the Lessee may pay monthly oil royalties per Texas Administrative Code (TAC) Title 31, Part 1, Chapter 9, Subchapter D, Rule §9.51.
2. All gas production royalties shall be due based on the gross gas production volumes (adjusted to MMBTUs) as measured by the available for sale gas meter located at the HSS State 113-23x14 1H Tank Battery after accounting for any applicable off-lease gas lift supply; and any other non-sales dispositions such as fuel, vent, and flare volumes.

   The gross production of gas shall be determined by the sum of: (1) the gas production volumes and energy content remaining after accounting for any applicable off-lease gas lift contribution as measured at the available for sale facility gas meter located downstream of the separation equipment serving the state lease/unit, (2) the applicable flash gas volume and composition as determined by the performance of laboratory flash separation tests at the appropriate stage of separation or per industry standard correlations, based on the total monthly oil production of each state lease/unit, and (3) any other non-sales dispositions such as fuel, vent, and flare volumes. The gas BTU content and component analysis obtained at each lease separator and facility gas meter shall be determined by gas sample chromatographic analysis or other industry-accepted practices.
3. Retain, for lease audit purposes, all meter records, volume statements/reports, oil and gas analyses reports, and shrinkage/flash gas calculation records for a period of at least seven (7) years after creation of each report or record.
4. Any changes to the flow process, metering scheme, or the addition of any state lease wells that are not currently processed at the HSS State 113-23x14 1H Tank Battery shall require the Lessee to obtain permission from the GLO prior to making said changes.
5. With respect to the application of gas lift as an artificial lift method and the use of off-lease sources of gas, the Lessee has permission to utilize gas lift and off-lease make-up supply sources contingent upon the requirement that:
   a. Lessee shall install and utilize square-edged orifice meters and meter tubes per all applicable specifications and requirements of API MPMS 14.3/AGA Report No. 3 for gas measurement,
   b. Lessee shall continuously meter the gas lift supply to each well and the gas that passes through any other gas lift supply and distribution meter,
   c. All measuring equipment shall be calibrated and adjusted as necessary by Lessee or as frequently as deemed necessary due to cleaning, repair, replacement, or any other condition that affects the accuracy, repeatability, and linearity of a meter, but not less frequently than once per calendar quarter, at intervals not to exceed 100 days, and

d. The gas BTU content and component analysis obtained at each lease/unit gas lift supply meter shall be determined by gas sample chromatographic analysis.

If you have questions, please contact me at (512) 475-2230, or by FAX at (512) 475-1543. My e-mail address is matthew.scott@glo.state.tx.us

Sincerely,

Matthew T. Scott, P.E.
Petroleum Engineer
Energy Resources/Mineral Leasing

cc: Robert Hatter, Deputy Director of Energy Resources
Dale Sump, Director of Minerals Audit

(37)

File No. MF113061

CULBERSON County

AGREE TO COMMINGLE

Date Filed: 3/30/17

George P. Bush, Commissioner

By MT SCOTT

7014 2070 0000 7391 4825

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

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OFFICIAL USE

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Extra Services & Fees *(check box, add fee as appropriate)*
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- ☐ Return Receipt (electronic) $ _____
- ☐ Certified Mail Restricted Delivery $ _____
- ☐ Adult Signature Required $ _____
- ☐ Adult Signature Restricted Delivery $ _____

Postage
$

Total Postage and Fees
$ ATTN: Holly Dutton

MF112948
MF112949

Postmark Here

MF113061 MF115984
MF113601 MF116836
MF113596
MF113603

Sent To
BHP Billiton Petroleum (TXLA) Operating Company

Street and Apt. No., or PO Box No.
1360 Post Oak Blvd STE 150

City, State, ZIP+4®
Houston, TX 77056-3030

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BHP Billiton Petroleum (TXLA Operating) Company
Attn: Holly Dutton
1360 Post Oak Blvd Ste 150
Houston, TX 77056-3030

Billing Date: 9/11/2017
Billing Due Date: 10/11/2017
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
18I00006	MF113061	$8,384.16	$0.00	$865.45	$436.30	$9,685.91
18I00007	MF113061	$0.00	$1,079.61	$200.00	$70.08	$1,349.69
18I00009	MF113596	$0.00	$1,048.01	$140.95	$66.83	$1,255.79
18I00010	MF113601	$0.00	$508.71	$100.00	$32.23	$640.94
18I00012	MF113603	$14,420.98	$0.00	$1,450.51	$750.93	$16,622.42
Total Due		$22,805.14	$2,636.33	$2,756.91	$1,356.37	**$29,554.75**

Penalty and interest have been calculated thru 9/30/2017. Payment remitted after 9/30/2017 will result in additional penalty and interest charges.

Contact Info: Sabrina Garcia (512) 475-1510 or Sabrina.Garcia@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For other royalty reporting questions, visit http://www.glo.texas.gov, call (512) 463-6850 or email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing

BHP Billiton Petroleum (TXLA Operating) Company
Billing Date: 9/11/2017
Billing Due Date: 10/11/2017
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
18I00006	MF113061	$8,384.16	$0.00	$865.45	$436.30	$9,685.91
18I00007	MF113061	$0.00	$1,079.61	$200.00	$70.08	$1,349.69
18I00009	MF113596	$0.00	$1,048.01	$140.95	$66.83	$1,255.79
18I00010	MF113601	$0.00	$508.71	$100.00	$32.23	$640.94

Texas General Land Office

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

18I00012	MF113603	$14,420.98	$0.00	$1,450.51	$750.93	$16,622.42
Total Due		$22,805.14	$2,636.33	$2,756.91	$1,356.37	**$29,554.75**
Amt. Paid						

Customer ID: C000046383
Invoice Number: 18I00006
GLO Lease: MF113061
GLO Review: BHP Billiton Petroleum (TXLA OP) Co
Review Period: September 2015 Through August 2016

Category Gas
Auditor/AE: Sgarcia
Billing Date: 8/25/2017
P&I Calculation Date: 9/30/2017
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
Sep-15	08-272717	1,815	1.00000000	$ 2.608895	1.018596	$4,823.20	$602.90	$0.00	$602.90	685	4.25%	$60.29	$43.95	$707.14
Oct-15	08-272717	838	1.00000000	$ 2.416740	1.044378	$2,115.10	$264.39	$0.00	$264.39	655	4.25%	$26.44	$18.35	$309.18
Nov-15	08-272717	1,071	1.00000000	$ 2.115588	1.080542	$2,448.29	$306.04	$0.00	$306.04	624	4.50%	$30.60	$21.32	$357.96
Apr-16	08-272717	1,304	1.00000000	$ 1.663685	1.020163	$2,213.19	$276.65	$0.00	$276.65	472	4.50%	$27.67	$14.09	$318.41
May-16	08-272717	2,914	1.00000000	$ 1.663685	1.020163	$4,945.73	$618.22	$0.00	$618.22	442	4.50%	$61.82	$29.19	$709.23
Jun-16	08-272717	1,681	1.00000000	$ 1.697382	1.021124	$2,913.57	$364.20	$0.00	$364.20	411	4.50%	$36.42	$15.81	$416.43
Jul-16	08-272717	1,936	1.00000000	$ 2.421207	1.018770	$4,775.44	$596.93	$0.00	$596.93	380	4.50%	$59.69	$23.62	$680.24
Aug-16	08-272717	1,676	1.00000000	$ 2.564361	1.019376	$4,381.14	$547.64	$0.00	$547.64	350	4.50%	$54.76	$19.65	$622.05
Sep-15	08-278957	423	1.00000000	$ 3.174554	1.038959	$1,395.15	$174.39	$0.00	$174.39	685	4.25%	$25.00	$12.71	$212.10
Oct-15	08-278957	1,395	1.00000000	$ 3.734147	1.023851	$5,333.38	$666.67	$0.00	$666.67	655	4.25%	$66.67	$46.27	$779.61
Nov-15	08-278957	1,751	1.00000000	$ 3.647267	1.032815	$6,595.93	$824.49	$0.00	$824.49	624	4.50%	$82.45	$57.43	$964.37
Dec-15	08-278957	190	1.00000000	$ 2.172574	1.070408	$441.85	$55.23	$0.00	$55.23	593	4.50%	$25.00	$3.64	$83.87
Apr-16	08-278957	2,059	1.00000000	$ 1.663866	1.020163	$3,494.98	$436.87	$0.00	$436.87	472	4.50%	$43.69	$22.24	$502.80
May-16	08-278957	2,327	1.00000000	$ 1.663866	1.020163	$3,949.88	$493.74	$0.00	$493.74	442	4.50%	$49.37	$23.31	$566.42
Jun-16	08-278957	2,770	1.00000000	$ 1.697413	1.021124	$4,801.16	$600.14	$0.00	$600.14	411	4.50%	$60.01	$26.04	$686.19
Jul-16	08-278957	2,522	1.00000000	$ 2.421306	1.018700	$6,220.73	$777.59	$0.00	$777.59	380	4.50%	$77.76	$30.77	$886.12
Aug-16	08-278957	2,381	1.00000000	$ 2.564583	1.019376	$6,224.59	$778.07	$0.00	$778.07	350	4.50%	$77.81	$27.91	$883.79
TOTALS		29,053				$67,073.31	$8,384.16	$0.00	$8,384.16			$865.45	$436.30	$9,685.91

ATTN: Holly Dutton
CERTIFIED MAIL: 7016 2070 0000 7391 4825

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3)	VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL IDS 08-272717 (UNIT 7222), 08-278957 (UNIT 7505).
COLUMNS (5), (6)	PRICE & BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14)	PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT: http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1: PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, NOTIFY THE AUDITOR AS TO THE REMITTANCE DATE SO THE INVOICE CAN BE PROPERLY CREDITED.

Customer ID: C000046383
Invoice Number: 18I00007
GLO Lease: MF113061
GLO Review: BHP Billiton Petroleum (TXLA OP) Co
Review Period: September 2015 Through August 2016

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/25/2017
P&I Calculation Date: 9/30/2017
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
Oct-15	08-272717	22	1.00000000	$ 41.14786	1.00	$905.25	$113.16	$0.00	$113.16	665	4.25%	$25.00	$7.98	$146.14
Nov-15	08-272717	12	1.00000000	$ 41.43072	1.00	$497.17	$62.15	$0.00	$62.15	634	4.50%	$25.00	$4.41	$91.56
Jan-16	08-272717	42	1.00000000	$ 29.87891	1.00	$1,254.91	$156.86	$0.00	$156.86	574	4.50%	$25.00	$9.96	$191.82
Mar-16	08-272717	49	1.00000000	$ 28.82331	1.00	$1,412.34	$176.54	$0.00	$176.54	513	4.50%	$25.00	$9.88	$211.42
Oct-15	08-278957	46	1.00000000	$ 41.21977	1.00	$1,896.11	$237.01	$0.00	$237.01	665	4.25%	$25.00	$16.72	$278.73
Nov-15	08-278957	15	1.00000000	$ 40.34996	1.00	$605.25	$75.66	$0.00	$75.66	634	4.50%	$25.00	$5.36	$106.02
Jan-16	08-278957	48	1.00000000	$ 29.22666	1.00	$1,402.88	$175.36	$0.00	$175.36	574	4.50%	$25.00	$11.13	$211.49
Mar-16	08-278957	23	1.00000000	$ 28.82325	1.00	$662.93	$82.87	$0.00	$82.87	513	4.50%	$25.00	$4.64	$112.51
TOTALS		257				$8,636.85	$1,079.61	$0.00	$1,079.61			$200.00	$70.08	$1,349.69

ATTN: Holly Dutton
CERTIFIED MAIL: 7016 2070 0000 7391 4825

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3)	VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-272717 (UNIT 7222) and 08-278957 (UNIT 7505).
COLUMN (5)	PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14)	PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT: http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Customer ID: C000046383
Invoice Number: 18I00009
GLO Lease: MF113596
GLO Review: BHP Billiton Petroleum (TXLA OP) Co
Review Period: September 2015 Through August 2016

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/25/2017
P&I Calculation Date: 9/30/2017
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
Sep-15	08-272717	8	1.00000000	$ 37.936640	1.00	$303.49	$37.94	$0.00	$37.94	695	4.25%	$25.00	$2.81	$65.75
Oct-15	08-272717	44	1.00000000	$ 41.147960	1.00	$1,810.51	$226.31	$0.00	$226.31	665	4.25%	$25.00	$15.97	$267.28
Nov-15	08-272717	24	1.00000000	$ 41.430760	1.00	$994.34	$124.29	$0.00	$124.29	634	4.50%	$25.00	$8.81	$158.10
Jan-16	08-272717	83	1.00000000	$ 29.878880	1.00	$2,479.95	$309.99	$0.00	$309.99	574	4.50%	$31.00	$19.68	$360.67
Mar-16	08-272717	97	1.00000000	$ 28.823280	1.00	$2,795.86	$349.48	$0.00	$349.48	513	4.50%	$34.95	$19.56	$403.99
TOTALS		256				$8,384.15	$1,048.01	$0.00	$1,048.01			$140.95	$66.83	$1,255.79

ATTN: Holly Dutton
CERTIFIED MAIL: 7016 2070 0000 7391 4825

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3)	VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-272717.
COLUMN (5)	PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14)	PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT: http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Customer ID: C000046383
Invoice Number: 18I00010
GLO Lease: MF113601
GLO Review: BHP Billiton Petroleum (TXLA OP) Co
Review Period: September 2015 Through August 2016

Category Oil
Auditor/AE: Sgarcia
Billing Date: 8/25/2017
P&I Calculation Date: 9/30/2017
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fron	Revenue Due
Oct-15	08-272717	22	1.00000000	$ 41.14786	1.00	$905.25	$113.16	$0.00	$113.16	665	4.25%	$25.00	$7.98	$146.14
Nov-15	08-272717	12	1.00000000	$ 41.43072	1.00	$497.17	$62.15	$0.00	$62.15	634	4.50%	$25.00	$4.41	$91.56
Jan-16	08-272717	42	1.00000000	$ 29.87893	1.00	$1,254.92	$156.86	$0.00	$156.86	574	4.50%	$25.00	$9.96	$191.82
Mar-16	08-272717	49	1.00000000	$ 28.82331	1.00	$1,412.34	$176.54	$0.00	$176.54	513	4.50%	$25.00	$9.88	$211.42
TOTALS		125				$4,069.68	$508.71	$0.00	$508.71			$100.00	$32.23	$640.94

ATTN: Holly Dutton
CERTIFIED MAIL: 7016 2070 0000 7391 4825

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3)	VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-272717.
COLUMN (5)	PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14)	PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT: http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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Customer ID: C000046383
Invoice Number: 18I00012
GLO Lease: MF113603
GLO Review: BHP Billiton Petroleum (TXLA OP) Co
Review Period: September 2015 Through August 2016

Category Gas
Auditor/AE: Sgarcia
Billing Date: 8/25/2017
P&I Calculation Date: 9/30/2017
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Particip	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Ro	Number of Da	Interest Rate For	Penalty Rate Fron	Interest Rate Fror	Revenue Due
Sep-15	08-278957	1,268	1.00000000	$ 3.174572	1.038959	$4,182.18	$522.77	$0.00	$522.77	685	4.25%	$52.28	$38.10	$613.15
Oct-15	08-278957	4,183	1.00000000	$ 3.734135	1.023851	$15,992.44	$1,999.05	$0.00	$1,999.05	655	4.25%	$199.91	$138.73	$2,337.69
Nov-15	08-278957	5,252	1.00000000	$ 3.647261	1.032815	$19,784.00	$2,473.00	$0.00	$2,473.00	624	4.50%	$247.30	$172.26	$2,892.56
Dec-15	08-278958	571	1.00000000	$ 2.172896	1.070408	$1,328.08	$166.01	$0.00	$166.01	593	4.50%	$25.00	$10.93	$201.94
Apr-16	08-278959	6,179	1.00000000	$ 1.663817	1.020163	$10,488.02	$1,311.00	$0.00	$1,311.00	472	4.50%	$131.10	$66.75	$1,508.85
May-16	08-278960	6,982	1.00000000	$ 1.663817	1.020163	$11,851.00	$1,481.37	$0.00	$1,481.37	442	4.50%	$148.14	$69.95	$1,699.46
Jun-16	08-278961	8,309	1.00000000	$ 1.697294	1.021124	$14,400.72	$1,800.09	$0.00	$1,800.09	411	4.50%	$180.01	$78.12	$2,058.22
Jul-16	08-278962	7,568	1.00000000	$ 2.421276	1.018777	$18,668.29	$2,333.54	$0.00	$2,333.54	380	4.50%	$233.35	$92.35	$2,659.24
Aug-16	08-278963	7,143	1.00000000	$ 2.564505	1.019376	$18,673.19	$2,334.15	$0.00	$2,334.15	350	4.50%	$233.42	$83.74	$2,651.31
TOTALS		47,455				$115,367.92	$14,420.98	$0.00	$14,420.98			$1,450.51	$750.93	$16,622.42

ATTN: Holly Dutton
CERTIFIED MAIL: 7016 2070 0000 7391 4825

COMMENTS: BILLING ON DIFFERENCE FROM VOLUMES REPORTED TO GLO COMPARED TO THE VOLUMES REPORTED TO RRC.

COLUMN (3) VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID 08-278957
COLUMNS (5), (6) PRICE & BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE.
COLUMNS (12), (13), (14) : PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
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File No. MF 113061

County

Recon Billing

Date Filed: 9/14/17

George P. Bush, Commissioner

By

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
833635	Dec 04, 2017	* 08
API NUMBER	**FORM W-1 RECEIVED**	**COUNTY**
42-109-33250	Nov 29, 2017	CULBERSON
TYPE OF OPERATION	**WELLBORE PROFILE(S)**	**ACRES**
NEW DRILL	Horizontal	641.04

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HS STATE 113-16	W108H
LOCATION	**TOTAL DEPTH**
15.93 miles W direction from ORLA	14000

Section, Block and/or Survey
SECTION 16 BLOCK 113 ABSTRACT 5115
SURVEY PSL / COOKSEY, J M

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
576 ft. NORTH 882 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	**DISTANCE TO NEAREST WELL ON LEASE**
50 ft. SOUTH 330 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
FORD, WEST (WOLFCAMP)	641.04	12,500	W108H	08
HS STATE 113-16	200		0	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office. Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 200.0 F SOUTH L
330.0 F EAST L
Terminus Location
Lease Lines: 50.0 F SOUTH L
330.0 F EAST L
Survey Lines: 50.0 F SOUTH L
330.0 F EAST L

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
833635	Dec 04, 2017	* 08
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42-109-33250	Nov 29, 2017	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	641.04

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

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District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HS STATE 113-16	W108H
LOCATION	TOTAL DEPTH
15.93 miles W direction from ORLA	14000

Section, Block and/or Survey
SECTION 16 BLOCK 113 ABSTRACT 5115
SURVEY PSL / COOKSEY, J M

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
576 ft. NORTH 882 ft. EAST	200 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
50 ft. SOUTH 330 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

Railroad Commission of Texas

PERMIT TO DRILL, RE-COMPLETE, OR RE-ENTER ON REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

CONDITIONS AND INSTRUCTIONS

Permit Invalidation. It is the operator's responsibility to make sure that the permitted location complies with Commission density and spacing rules in effect on the spud date. The permit becomes invalid automatically if, because of a field rule change or the drilling of another well, the stated location is not in compliance with Commission field rules on the spud date. If this occurs, application for an exception to Statewide Rules 37 and 38 must be made and a special permit granted prior to spudding. Failure to do so may result in an allowable not being assigned and/or enforcement procedures being initiated.

Notice Requirements. Per H.B 630, signed May 8, 2007, the operator is required to provide notice to the surface owner no later than the 15th business day after the Commission issues a permit to drill. Please refer to subchapter Q Sec. 91.751-91.755 of the Texas Natural Resources Code for applicability.

Permit expiration. This permit expires two (2) years from the date of issuance shown on the original permit. The permit period will not be extended.

Drilling Permit Number. The drilling permit number shown on the permit MUST be given as a reference with any notification to the district (see below), correspondence, or application concerning this permit.

Rule 37 Exception Permits. This Statewide Rule 37 exception permit is granted under either provision Rule 37 (h)(2)(A) or 37(h)(2)(B). Be advised that a permit granted under Rule 37(h)(2)(A), notice of application, is subject to the General Rules of Practice and Procedures and if a protest is received under Section 1.3, "Filing of Documents," and/or Section 1.4, "Computation of Time," the permit may be deemed invalid.

Before Drilling

Fresh Water Sand Protection. The operator must set and cement sufficient surface casing to protect all usable-quality water, as defined by the Railroad Commission of Texas (RRC) Groundwater Advisory Unit (GWAU). Before drilling a well, the operator must obtain a letter from the Railroad Commission of Texas stating the depth to which water needs protection, Write: Railroad Commission of Texas, Groundwater Advisory Unit (GWAU), P.O. Box 12967, Austin, TX 78711-3087. File a copy of the letter with the appropriate district office.

Accessing the Well Site. If an OPERATOR, well equipment TRANSPORTER or WELL service provider must access the well site from a roadway on the state highway system (Interstate, U.S. Highway, State Highway, Farm-to-Market Road, Ranch-to-Market Road, etc.), an access permit is required from TxDOT. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

Water Transport to Well Site. If an operator intends to transport water to the well site through a temporary pipeline laid above ground on the state's right-of-way, an additional TxDOT permit is required. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

*NOTIFICATION

The operator is **REQUIRED** to notify the district office when setting surface casing, intermediate casing, and production casing, or when plugging a dry hole. The district office **MUST** also be notified if the operator intends to re-enter a plugged well or re-complete a well into a different regulatory field. Time requirements are given below. The drilling permit number **MUST** be given with such notifications.

During Drilling

Permit at Drilling Site. A copy of the Form W-1 Drilling Permit Application, the location plat, a copy of Statewide Rule 13 alternate surface casing setting depth approval from the district office, if applicable, and this drilling permit must be kept at the permitted well site throughout drilling operations.

***Notification of Setting Casing.** The operator MUST call in notification to the appropriate district office (phone number shown the on permit) a minimum of eight (8) hours prior to the setting of surface casing, intermediate casing, AND production casing. The individual giving notification MUST be able to advise the district office of the drilling permit number.

***Notification of Re-completion/Re-entry.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of eight (8) hours prior to the initiation of drilling or re-completion operations. The individual giving notification MUST be able to advise the district office of the drilling permit number.

Completion and Plugging Reports

Hydraulic Fracture Stimulation using Diesel Fuel: Most operators in Texas do not use diesel fuel in hydraulic fracturing fluids. Section 322 of the Energy Policy Act of 2005 amended the Underground Injection Control (UIC) portion of the federal Safe Drinking Water Act (42 USC 300h(d)) to define "underground Injection" to *EXCLUDE* " ...the underground injection of fluids or propping agents (*other than diesel fluels*) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." (italic and underlining added.) Therefore, hydraulic fracturing may be subject to regulation under the federal UIC regulations if diesel fuel is injected or used as a propping agent. EPA defined "diesel fuel" using the following five (5) Chemical Abstract Service numbers: 68334-30-5 Primary Name: Fuels, diesel; 68476-34-6 Primary Name: Fuels, diesel, No. 2; 68476-30-2 Primary Name: Fuel oil No. 2; 68476-31-3 Primary Nmae: Fuel oil, No. 4; and 8008-20-6 Primary Name: Kerosene. As a result, an injection well permit would be required before performing hydraulic fracture stimulation using diesel fuel as defined by EPA on any well in Texas. Hydraulic fracture stimulation using diesel fuel as defined by EPA on a well in Texas without an injection well permit could result in enforcement action.

Producing Well. Statewide Rule 16 states that the operator of a well shall file with the Commission the appropriate completion report within thirty (30) days after completion of the well or within ninety (90) days after the date on which the drilling operation is completed, whichever is earlier. Completion of the well in a field authorized by this permit voids the permit for all other fields included in the permit unless the operator indicates on the initial completion report that the well is to be a dual or multiple completion and promptly submits an application for multiple completion. All zones are required to be completed before the expiration date on the existing permit. Statewide Rule 40(d) requires that upon successful completion of a well in the same reservoir as any other well previously assigned the same acreage, proration plats and P-15s (if required) must be submitted with no double assignment of acreage.

Dry or Noncommercial Hole. Statewide Rule 14(b)(2) prohibits suspension of operations on each dry or non-commercial well without plugging unless the hole is cased and the casing is cemented in compliance with Commission rules. If properly cased, Statewide Rule 14(b)(2) requires that plugging operations must begin within a period of one (1) year after drilling or operations have ceased. Plugging operations must proceed with due diligence until completed. An extension to the one-year plugging requirement may be granted under the provisions stated in Statewide Rule 14(b)(2).

Intention to Plug. The operator must file a Form W-3A (Notice of Intention to Plug and Abandon) with the district office at least five (5) days prior to beginning plugging operations. If, however, a drilling rig is already at work on location and ready to begin plugging operations, the district director or the director's delegate may waive this requirement upon request, and verbally approve the proposed plugging procedures.

***Notification of Plugging a Dry Hole.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of four (4) hours prior to beginning plugging operations. The individual giving the notification MUST be able to advise the district office of the drilling permit number and all water protection depths for that location as stated in the Texas Commission on Environmental Quality letter.

DIRECT INQUIRIES TO: DRILLING PERMIT SECTION, OIL AND GAS DIVISION

PHONE
(512) 463-6751

MAIL:
PO Box 12967
Austin, Texas, 78711-2967

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

SWR #13 Formation Data

CULBERSON (109) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	450	450		1	12/17/2013
FORD-DELAWARE	2,500	2,500		2	12/17/2013
DELAWARE	2,600	3,400		3	12/17/2013
CHERRY CANYON	3,600	5,400		4	12/17/2013
BONE SPRINGS	6,150	6,150		5	12/17/2013
MISSISSIPPIAN	8,900	8,900		6	12/17/2013
WOLFCAMP	7,900	9,100		7	12/17/2013
ATOKA	11,600	11,600		8	12/17/2013
MORROW	11,800	11,800		9	12/17/2013
STRAWN	5,750	12,800		10	12/17/2013
SILURIAN	15,400	15,400		11	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	05 December 2017	**GAU Number:**	184698

Attention:	BHP BILLITON PET(TXLA OP) 1500 POST OAK BLVD HOUSTON, TX 77056	**API Number:**	
		County:	CULBERSON
		Lease Name:	HS State 113-16
		Lease Number:	
Operator No.:	068596	**Well Number:**	W108H
		Total Vertical Depth:	14000
		Latitude:	31.728234
		Longitude:	-104.154316
		Datum:	NAD27

Purpose: New Drill

Location: Survey-S.H.L. & B.H.L. in PSL; Abstract-5115; Block-113; Section-16

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 300 feet, must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 11/29/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

CHRISTI CRADDICK, CHAIRMAN
DAVID PORTER, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON, PH.D.
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

MINOR PERMIT TO TREAT DOMESTIC WASTEWATER

Permit No. MPGW-A18-0572-D08
Permit Effective **12/5/2017**

BHP BILLITON PET (TXLA OP) CO
1360 POST OAK BLVD, STE. 150
HOUSTON, TX 77056

Based on information contained in the original application received November 29, 2017, and additional information received to date, you are hereby authorized to treat, recycle, and reuse domestic wastewater as described herein:

Ford (Wolfcamp), **HS State 113-9**
W108H, Drilling Permit Number 833636
Latitude, Longitude: 31.728391° & -104.154734°
Culberson County, Texas
RRC District 08, Midland

This minor permit grants authority to store, handle, treat, recycle, and reuse certain non-hazardous domestic wastewater in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and the following conditions:

1. The effective date of this permit is **12/5/2017**, and the authority granted by this permit expires on **4/5/2018**.
2. This permit authorizes the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites for use down-hole and/or for dust suppression and controlled irrigation purposes as specified in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached to and incorporated into this permit as **Permit Appendix A**. Treatment and reuse of the waste streams is granted for use at the above referenced location(s).
3. This permit does not authorize the discharge of any domestic wastewater or waste streams generated from mobile drinking water treatment systems into any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other body of surface water.

4. Residual solids accumulated during the treatment process must be removed and transported by a Texas Commission on Environmental Quality (TCEQ) registered sludge transporter to a TCEQ permitted disposal facility approved to receive and manage domestic sewage prior to treatment system relocation.
5. Unless otherwise required by conditions of this permit, operation of the treatment system(s) and reuse of the treated waste streams must be in accordance with the information represented in the permit application and information contained in the "APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES" (Domestic Wastewater Application Worksheet), which is attached to and incorporated into this permit as **Permit Appendix B**.
6. A waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes.
7. If treated domestic wastewater and mobile drinking water treatment system wastewater are commingled, the more stringent requirements will apply, unless otherwise indicated.
8. If treated domestic wastewater or wastewater from mobile drinking water treatment systems is stored for greater than seven days, a chlorine residual between 2 and 3 part per million (ppm) must be maintained.
9. For treated domestic wastewater, no more than 5,000 gallons per day of pre-treated domestic wastewater may be received and processed.
10. The treated domestic wastewater and drinking water treatment system wastewater must be analyzed as indicated for the Parameters listed in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**. All samples shall be representative of the respective waste streams. All sample acquisition, preservation, and analysis must be performed according to procedures specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 136. The procedures used to preserve the samples and analytical methods used shall be reported.
11. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.
12. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or accelerator proposed to be used in the treatment of waste at the facility that was not identified in the initial application. Storage of the chemicals must be in accordance with the manufacturers' specifications and must be maintained in a leak free condition.

13. Prior to recycling and reuse, the treated domestic wastewater must be stored in the 20-mil high density polyethylene (HDPE) on-site reserve pit with a permeability less than or equal to 1 x 10^{-7} cm/s. Earthen berms must be constructed around the pit and must be compacted or constructed of material that meets 95% standard Proctor (ASTM D-698) or 90-92% modified Proctor (ASTM D-1557) density. The berm shall be constructed to a height of at least two feet and shall maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate storm water within the waste management units.
14. Upon completion of the project, a report detailing all relevant activities for the duration of the permit must be submitted including:
    a. The total number of days domestic wastewater and/or mobile drinking water treatment system wastewater is reused or applied after treatment.
    b. The total volume of each type of waste received for treatment.
    c. The total volume of treated effluent for each type of reuse method (down-hole, controlled irrigation, dust suppression).
    d. A table of the water treatment analytical results, sampling dates, corresponding analytical reports, and chain of custody for the Parameters required to be analyzed in the "SAMPLE CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**.
15. All reports must be certified as follows: "I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my direct supervision and direction, and that data and facts stated therein are true and complete to the best of my knowledge."
16. Water treatment vessels and equipment must be maintained in good operating condition for the duration of the permit.
17. Any changes affecting this permit must be reported to Technical Permitting in Austin or the appropriate District Office in order for the Railroad Commission of Texas (RRC) to determine whether a permit amendment is necessary.
18. This permit may be considered for administrative renewal upon review by the RRC. Submit any request for renewal at least 30 days prior to this permit's expiration date.
19. Failure to comply with any condition of this minor permit shall be cause for modification, suspension, termination, or cancellation of this minor permit if Technical Permitting determines that the permittee is in violation RRC rules.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON **DECEMBER 5, 2017.**

Craig Pearson, PhD
District Director
Midland District Office

Attachments: Permit Appendices A and B

CC: RRC – District 08/ Midland
RRC – Environmental Permits and Support, Austin

PERMIT APPENDIX A

Sampling Criteria for Waste Streams

Permit No. MPGW-A18-0572-D08

SAMPLING CRITERIA FOR WASTE STREAMS

The RRC has jurisdiction over the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites. The term domestic wastewater means wastewater that originates primarily from kitchen, bathroom, and laundry sources, including wastes from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. The term "mobile drinking water treatment system wastewater" means wastewater generated from the treatment of groundwater for drinking water purposes, including reverse osmosis reject water. The following analyses are required for each specific end use of the treated wastewater:

TOTAL ESTIMATED VOLUME

The estimated daily volume of the treated and recycled waste stream from all sources is presented below. The total volume of the influent source of domestic wastewater must be less than 5,000 gallons per day.

Waste Stream	Reuse Method	Estimated Volume (GPD)
Treated Domestic Wastewater (< 5,000 GPD)	Down-hole	4,800
	Dust Suppression	0
	Controlled Irrigation	0
Mobile Drinking Water Treatment System Wastewater	Down-hole	800
	Dust Suppression	0
	Controlled Irrigation	

MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER

Mobile drinking water treatment system wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes. No permit or testing criteria is required for reuse of mobile drinking water treatment system wastewater for down-hole recycling purposes.

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted once per site location for the Parameters below:

PARAMETER	LIMITATION
Total Dissolved Solids (TDS) *Standard Method 2540 or equivalent*	Report mg/l
pH *EPA Method 9045 or equivalent*	Report SU
Electrical Conductivity (EC)	Report mmhos/cm

TREATED DOMESTIC WASTEWATER

Treated domestic wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes; however, a waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes. Each specific end use requires different testing requirements as described below.

- **Down-hole purposes:** Quality assurance sampling and analysis of the treated effluent utilized for down-hole purposes must be conducted every fourteen (14) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 80 milligrams per liter (mg/l)
Escherichia coli (E-Coli)	≤ 800 CFU/100 milliliters (ml)
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 Standard Units (SU)

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted every seven (7) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 65 mg/l
E-Coli for "Dust Suppression"	≤ 200 CFU/100 ml
E-Coli for "Controlled Irrigation"	≤ 75 CFU/100 ml
Oil and Grease *EPA Method 1664*	≤ 30 mg/l
Total Chlorides *or site-specific background for surficial aquifer*	≤ 1,500 mg/l
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 SU

* Carbonaceous Biological/Biochemical Oxygen Demand ($CBOD_5$) may be substituted for BOD_5

PERMIT APPENDIX B

Domestic Wastewater Application Worksheet

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co			OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056			TYPE OF FACILITY Drill Pad
RRC DISTRICT NO. 08	COUNTY Culberson	FIELD NAME FOord (Wolfcamp)	LEASE NAME AND Number HS State 113-9 W108H
WELL NUMBER AND DRILLING PERMIT NUMBER Well # W108H / Permit Pending 833636		LATITUDE/LONGITUDE (Decimal Degrees) 31.728391 / -104.154734	
NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES Water Fleet LLC			

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

- [X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800
- [X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm: 5'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT	ESTIMATED TREATED EFFLUENT VOLUME (GPD)
[X] Down-hole Application	Down-hole: 4800
[ ] Controlled Irrigation [ ] Dust Suppressant	Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit, the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: November 29, 2017

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	05 December 2017	**GAU Number:**	184698

Attention:	BHP BILLITON PET(TXLA OP) 1500 POST OAK BLVD HOUSTON, TX 77056	**API Number:**	
		County:	CULBERSON
		Lease Name:	HS State 113-16
		Lease Number:	
Operator No.:	068596	**Well Number:**	W108H
		Total Vertical Depth:	14000
		Latitude:	31.728234
		Longitude:	-104.154316
		Datum:	NAD27

Purpose: New Drill

Location: Survey-S.H.L. & B.H.L. in PSL; Abstract-5115; Block-113; Section-16

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 300 feet, must be protected.

This recommendation is applicable to all wells within a radius of 200 feet of this location.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. This recommendation is for normal drilling, production, and plugging operations only. It does not apply to saltwater disposal operation into a nonproductive zone (RRC Form W-14).

This determination is based on information provided when the application was submitted on 11/29/2017. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

CHRISTI CRADDICK, CHAIRMAN
DAVID PORTER, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON, PH.D.
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

MINOR PERMIT TO TREAT DOMESTIC WASTEWATER

Permit No. MPGW-A18-0571-D08
Permit Effective **12/5/2017**

BHP BILLITON PET (TXLA OP) CO
1360 POST OAK BLVD, STE. 150
HOUSTON, TX 77056

Based on information contained in the original application received November 29, 2017, and additional information received to date, you are hereby authorized to treat, recycle, and reuse domestic wastewater as described herein:

Ford (Wolfcamp), **HS State 113-16**
W108H, Drilling Permit Number 833635
Latitude, Longitude: 31.725359° & -104.154796°
Culberson County, Texas
RRC District 08, Midland

This minor permit grants authority to store, handle, treat, recycle, and reuse certain non-hazardous domestic wastewater in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and the following conditions:

1. The effective date of this permit is **12/5/2017**, and the authority granted by this permit expires on **4/5/2018**.
2. This permit authorizes the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites for use down-hole and/or for dust suppression and controlled irrigation purposes as specified in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached to and incorporated into this permit as **Permit Appendix A**. Treatment and reuse of the waste streams is granted for use at the above referenced location(s).
3. This permit does not authorize the discharge of any domestic wastewater or waste streams generated from mobile drinking water treatment systems into any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other body of surface water.

4. Residual solids accumulated during the treatment process must be removed and transported by a Texas Commission on Environmental Quality (TCEQ) registered sludge transporter to a TCEQ permitted disposal facility approved to receive and manage domestic sewage prior to treatment system relocation.
5. Unless otherwise required by conditions of this permit, operation of the treatment system(s) and reuse of the treated waste streams must be in accordance with the information represented in the permit application and information contained in the "APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES" (Domestic Wastewater Application Worksheet), which is attached to and incorporated into this permit as **Permit Appendix B**.
6. A waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes.
7. If treated domestic wastewater and mobile drinking water treatment system wastewater are commingled, the more stringent requirements will apply, unless otherwise indicated.
8. If treated domestic wastewater or wastewater from mobile drinking water treatment systems is stored for greater than seven days, a chlorine residual between 2 and 3 part per million (ppm) must be maintained.
9. For treated domestic wastewater, no more than 5,000 gallons per day of pre-treated domestic wastewater may be received and processed.
10. The treated domestic wastewater and drinking water treatment system wastewater must be analyzed as indicated for the Parameters listed in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**. All samples shall be representative of the respective waste streams. All sample acquisition, preservation, and analysis must be performed according to procedures specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 136. The procedures used to preserve the samples and analytical methods used shall be reported.
11. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.
12. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or accelerator proposed to be used in the treatment of waste at the facility that was not identified in the initial application. Storage of the chemicals must be in accordance with the manufacturers' specifications and must be maintained in a leak free condition.

13. Prior to recycling and reuse, the treated domestic wastewater must be stored in the 20-mil high density polyethylene (HDPE) on-site reserve pit with a permeability less than or equal to 1 x 10^{-7} cm/s. Earthen berms must be constructed around the pit and must be compacted or constructed of material that meets 95% standard Proctor (ASTM D-698) or 90-92% modified Proctor (ASTM D-1557) density. The berm shall be constructed to a height of at least two feet and shall maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate storm water within the waste management units.
14. Upon completion of the project, a report detailing all relevant activities for the duration of the permit must be submitted including:
    a. The total number of days domestic wastewater and/or mobile drinking water treatment system wastewater is reused or applied after treatment.
    b. The total volume of each type of waste received for treatment.
    c. The total volume of treated effluent for each type of reuse method (down-hole, controlled irrigation, dust suppression).
    d. A table of the water treatment analytical results, sampling dates, corresponding analytical reports, and chain of custody for the Parameters required to be analyzed in the "SAMPLE CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**.
15. All reports must be certified as follows: "I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my direct supervision and direction, and that data and facts stated therein are true and complete to the best of my knowledge."
16. Water treatment vessels and equipment must be maintained in good operating condition for the duration of the permit.
17. Any changes affecting this permit must be reported to Technical Permitting in Austin or the appropriate District Office in order for the Railroad Commission of Texas (RRC) to determine whether a permit amendment is necessary.
18. This permit may be considered for administrative renewal upon review by the RRC. Submit any request for renewal at least 30 days prior to this permit's expiration date.
19. Failure to comply with any condition of this minor permit shall be cause for modification, suspension, termination, or cancellation of this minor permit if Technical Permitting determines that the permittee is in violation RRC rules.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON **DECEMBER 5, 2017.**

Craig Pearson, PhD
District Director
Midland District Office

Attachments: Permit Appendices A and B

CC: RRC – District 08/ Midland
RRC – Environmental Permits and Support, Austin

PERMIT APPENDIX A

Sampling Criteria for Waste Streams

Permit No. MPGW-A18-0571-D08

SAMPLING CRITERIA FOR WASTE STREAMS

The RRC has jurisdiction over the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites. The term domestic wastewater means wastewater that originates primarily from kitchen, bathroom, and laundry sources, including wastes from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. The term "mobile drinking water treatment system wastewater" means wastewater generated from the treatment of groundwater for drinking water purposes, including reverse osmosis reject water. The following analyses are required for each specific end use of the treated wastewater:

TOTAL ESTIMATED VOLUME

The estimated daily volume of the treated and recycled waste stream from all sources is presented below. The total volume of the influent source of domestic wastewater must be less than 5,000 gallons per day.

Waste Stream	Reuse Method	Estimated Volume (GPD)
Treated Domestic Wastewater (< 5,000 GPD)	Down-hole	4,800
	Dust Suppression	0
	Controlled Irrigation	0
Mobile Drinking Water Treatment System Wastewater	Down-hole	800
	Dust Suppression	0
	Controlled Irrigation	

MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER

Mobile drinking water treatment system wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes. No permit or testing criteria is required for reuse of mobile drinking water treatment system wastewater for down-hole recycling purposes.

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted once per site location for the Parameters below:

PARAMETER	LIMITATION
Total Dissolved Solids (TDS) *Standard Method 2540 or equivalent*	Report mg/l
pH *EPA Method 9045 or equivalent*	Report SU
Electrical Conductivity (EC)	Report mmhos/cm

TREATED DOMESTIC WASTEWATER

Treated domestic wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes; however, a waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes. Each specific end use requires different testing requirements as described below.

- **Down-hole purposes:** Quality assurance sampling and analysis of the treated effluent utilized for down-hole purposes must be conducted every fourteen (14) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 80 milligrams per liter (mg/l)
Escherichia coli (E-Coli)	≤ 800 CFU/100 milliliters (ml)
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 Standard Units (SU)

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted every seven (7) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 65 mg/l
E-Coli for "Dust Suppression"	≤ 200 CFU/100 ml
E-Coli for "Controlled Irrigation"	≤ 75 CFU/100 ml
Oil and Grease *EPA Method 1664*	≤ 30 mg/l
Total Chlorides *or site-specific background for surficial aquifer*	≤ 1,500 mg/l
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 SU

* Carbonaceous Biological/Biochemical Oxygen Demand ($CBOD_5$) may be substituted for BOD_5

PERMIT APPENDIX B

Domestic Wastewater Application Worksheet

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co			OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056			TYPE OF FACILITY Drill Pad
RRC DISTRICT NO. 08	COUNTY Culberson	FIELD NAME FOord (Wolfcamp)	LEASE NAME AND Number HS State 113-16 W108H
WELL NUMBER AND DRILLING PERMIT NUMBER Well # W108H / Permit Pending 833635		LATITUDE/LONGITUDE (Decimal Degrees) 31.725359 / -104.154796	

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm: 5'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT	ESTIMATED TREATED EFFLUENT VOLUME (GPD)
[X] Down-hole Application	Down-hole: 4800
[ ] Controlled irrigation [ ] Dust Suppressant	Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit, the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: November 29, 2017

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

39.

File No. MF1130061

Culberson County

Drilling Permit API 109-33250 NUML 8028

Date Filed: 02/13/2018

George P. Bush, Commissioner

By JM

13-34-15

BHP BILLITON PETROLEUM (TX GATHERING) LLC

2536

BHP BILLITON PETROLEUM (TX GATHERING) LLC

2536

18711670

T 31,476.95

161

Counted
6/01/15

Rev 2/14

10142/10142 (2/15) 670676

North America Shale • Permian Production Unit

BHP

BHP Billiton Petroleum
1714 W. Schmidt St.
Pecos, TX 79772
bhpbilliton.com

General Land Office State Of Texas
1700 N Congress Ave
Austin, TX 78701

RE: **Surface Damage Payment**
HSS State 113-16 Pad B Well Connect, Culberson County, Texas

M-113061

Dear Sir or Madam,

In regard to the above referenced well and in accordance with the terms of your lease with BHP Billiton Petroleum (TX Gathering), LLC, enclosed herein, please find a check in the amount of $31,476.95, which is made payable to the addressee above for surface damages resulting from drilling operations for the subject well.

Please note that the surface owners negotiated the price per Rod, which was used to calculate your payment. Enclosed is a breakdown of the payments being made to all surface owners along with copies of the certified plats used to determine your payment.

The enclosed check covers damages for the pipeline. By cashing Check No. 2536 in the amount of $31,476.95, you agree this payment is the full and final settlement for the damages listed above.

Should you have any questions regarding this matter, please do not hesitate to contact me at the telephone number listed below.

Respectfully,

Darryl Dollarhide
Right of Way Agent #30462
darryldollarhide@ymail.com
903-570-1814 cell

4 318

BHP Billiton Petroleum (TX Gathering) LLC

HSS State 113-16 Pad B Well Connect

Section 16, Block 113, Culberson County, TX

Line Length in feet = 6295.39

Line Length in Rods = 381.54 (rounded)

Landowner	Owner Interest	% in Rods	Payment per Rod	Total Payment
Yellow-Top Ranch, Inc.	0.75000	286.1535	165.00	$47,215.33
Cocanougher Asset #2 LTD	0.25000	95.3850	165.00	$15,738.53
Totals	1.00000	381.538	$165.00	$62,953.85

Payable to TXGLO - $31,476.93

Plat and check enclosed

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
501.328.3316 f 501.328.3325 f
www.craftontull.com

CULBERSON COUNTY, TEXAS

LEGEND

- CL OF PROPOSED PIPELINE PERMIT
- EXISTING PIPELINE ROUTE
- FENCE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- OHE OVERHEAD ELECTRIC
- LF LINEAR FEET
- POWER POLE
- TELEPHONE RISER
- FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

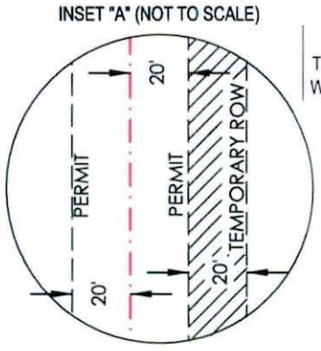
A-1989
E. PUTNAM

P.O.B. OF A 40' WIDE PERMIT
"HSS STATE 113-16 PAD B WELL CONNECT"

HSS STATE 113-16 PAD B

100' X 100'
TEMPORARY
WORKSPACE

INSET "A" (NOT TO SCALE)



50' X 50'
TEMPORARY
WORKSPACE

L1

30' X 63'
TEMPORARY
ACCESS
PERMIT

L2

50' X 50'
TEMPORARY
WORKSPACE

FIELD ROAD

SEE INSET "A"

640 ACRES
YELLOW TOP RANCH, INC.
VOL. 194, PG. 502

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 16, BLK. 113
COMBINED TOTAL: (6,295.39 L.F. OR 381.54 RODS)

L3

FIELD ROAD

HSS STATE 113-16X9 PAD A

P.O.C.
A 1" IRON PIPE, AT THE NORTHEAST CORNER OF SEC. 15, BLK. 113 BEING S 88°16'35" E - 5,964.36' FROM THE P.O.B. OF "HSS STATE 113-16 PAD B WELL CONNECT" & N 57°41'37" E - 7,721.00' FROM THE P.O.B. OF "HSS STATE 113-16X9 PAD A WELL CONNECT"

A-1262
W. H. HICKS

P.O.T. OF A 40' WIDE PERMIT
"HSS STATE 113-16 PAD B WELL CONNECT"

L4

P.O.B. OF A 40' WIDE PERMIT
"HSS STATE 113-16X9 PAD A WELL CONNECT"

L5

1.62 ACRE
TEMPORARY
WORKSPACE

SEE INSET "A"

L6

L7

P.O.T. OF A 40' WIDE PERMIT
"HSS STATE 113-16X9 PAD A WELL CONNECT"

A RAILROAD SPIKE, AT THE SOUTHEAST CORNER OF SEC. 21, BLK. 113 BEING S 07°39'15" E - 6,415.53' FROM THE P.O.T. OF "HSS STATE 113-16 PAD B WELL CONNECT" & S 12°37'48" E - 5,551.24' FROM THE P.O.T. OF "HSS STATE 113-16X9 PAD A WELL CONNECT"

LEASE ROAD

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

2/7/2018

"HSS STATE 113-16 PAD B WELL CONNECT"

NUMBER	BEARING	DISTANCE
L1	S 29°52'23" E	709.97'
L2	S 60°01'19" W	894.27'
L3	S 00°00'44" W	3,243.40'
L4	N 89°59'16" W	142.44'

TOTAL: (4,990.08 L.F. OR 302.43 RODS)

"HSS STATE 113-16X9 PAD A WELL CONNECT"

NUMBER	BEARING	DISTANCE
L5	S 00°23'44" E	440.35'
L6	S 89°59'55" W	363.84'
L7	S 00°10'18" E	501.12'

TOTAL: (1,305.31 L.F. OR 79.11 RODS)

GENERAL NOTES

1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C. - 0.99980759
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET
1000' 500' 0 1000'

REVISION	
1/30	REROUTE

BHP BILLITON PETROLEUM (TX GATHERING), LLC

"HSS STATE 113-16 PAD B WELL CONNECT"
YELLOW TOP RANCH, INC., ET AL
SECTION 16, BLOCK 113
CULBERSON COUNTY, TEXAS
TRACT NO. 01

SCALE: 1" = 1000'	CHECKED BY:	SO	APPROVED BY: JWB
PLOT DATE: 02-07-2018	DRAWN BY:	ALP	SHEET NO.: 7 OF 18

40

File No. MF 113061

Soil Fatal damage Payment

Filed: 7/8/19

George P. Bush, Comm.

Gb

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842441	Jul 18, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-109-33362	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	962.7

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HORSESHOESPRINGS STATE 113-10	2H
LOCATION	TOTAL DEPTH
14.71 miles SW direction from ORLA	14000

Section, Block and/or Survey
SECTION 10 BLOCK 113 ABSTRACT 5093
SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
970 ft. NORTH 1346 ft. EAST	100 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
970 ft. NORTH 1346 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

The designated interval, for one or more of the fields approved on this permit, appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

SWR #13 Formation Data

CULBERSON (109) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	450	450		1	12/17/2013
FORD-DELAWARE	2,500	2,500		2	12/17/2013
DELAWARE	2,600	3,400		3	12/17/2013
CHERRY CANYON	3,600	5,400		4	12/17/2013
BONE SPRINGS	6,150	6,150		5	12/17/2013
MISSISSIPPIAN	8,900	8,900		6	12/17/2013
WOLFCAMP	7,900	9,100		7	12/17/2013
ATOKA	11,600	11,600		8	12/17/2013
MORROW	11,800	11,800		9	12/17/2013
STRAWN	5,750	12,800		10	12/17/2013
SILURIAN	15,400	15,400		11	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

Railroad Commission of Texas

PERMIT TO DRILL, RE-COMPLETE, OR RE-ENTER ON REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

CONDITIONS AND INSTRUCTIONS

Permit Invalidation. It is the operator's responsibility to make sure that the permitted location complies with Commission density and spacing rules in effect on the spud date. The permit becomes invalid automatically if, because of a field rule change or the drilling of another well, the stated location is not in compliance with Commission field rules on the spud date. If this occurs, application for an exception to Statewide Rules 37 and 38 must be made and a special permit granted prior to spudding. Failure to do so may result in an allowable not being assigned and/or enforcement procedures being initiated.

Notice Requirements. Per H.B 630, signed May 8, 2007, the operator is required to provide notice to the surface owner no later than the 15th business day after the Commission issues a permit to drill. Please refer to subchapter Q Sec. 91.751-91.755 of the Texas Natural Resources Code for applicability.

Permit expiration. This permit expires two (2) years from the date of issuance shown on the original permit. The permit period will not be extended.

Drilling Permit Number. The drilling permit number shown on the permit MUST be given as a reference with any notification to the district (see below), correspondence, or application concerning this permit.

Rule 37 Exception Permits. This Statewide Rule 37 exception permit is granted under either provision Rule 37 (h)(2)(A) or 37(h)(2)(B). Be advised that a permit granted under Rule 37(h)(2)(A), notice of application, is subject to the General Rules of Practice and Procedures and if a protest is received under Section 1.3, "Filing of Documents," and/or Section 1.4, "Computation of Time," the permit may be deemed invalid.

Before Drilling

Fresh Water Sand Protection. The operator must set and cement sufficient surface casing to protect all usable-quality water, as defined by the Railroad Commission of Texas (RRC) Groundwater Advisory Unit (GWAU). Before drilling a well, the operator must obtain a letter from the Railroad Commission of Texas stating the depth to which water needs protection, Write: Railroad Commission of Texas, Groundwater Advisory Unit (GWAU), P.O. Box 12967, Austin, TX 78711-3087. File a copy of the letter with the appropriate district office.

Accessing the Well Site. If an OPERATOR, well equipment TRANSPORTER or WELL service provider must access the well site from a roadway on the state highway system (Interstate, U.S. Highway, State Highway, Farm-to-Market Road, Ranch-to-Market Road, etc.), an access permit is required from TxDOT. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

Water Transport to Well Site. If an operator intends to transport water to the well site through a temporary pipeline laid above ground on the state's right-of-way, an additional TxDOT permit is required. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

*NOTIFICATION

The operator is **REQUIRED** to notify the district office when setting surface casing, intermediate casing, and production casing, or when plugging a dry hole. The district office **MUST** also be notified if the operator intends to re-enter a plugged well or re-complete a well into a different regulatory field. Time requirements are given below. The drilling permit number **MUST** be given with such notifications.

During Drilling

Permit at Drilling Site. A copy of the Form W-1 Drilling Permit Application, the location plat, a copy of Statewide Rule 13 alternate surface casing setting depth approval from the district office, if applicable, and this drilling permit must be kept at the permitted well site throughout drilling operations.

***Notification of Setting Casing.** The operator MUST call in notification to the appropriate district office (phone number shown the on permit) a minimum of eight (8) hours prior to the setting of surface casing, intermediate casing, AND production casing. The individual giving notification MUST be able to advise the district office of the drilling permit number.

***Notification of Re-completion/Re-entry.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of eight (8) hours prior to the initiation of drilling or re-completion operations. The individual giving notification MUST be able to advise the district office of the drilling permit number.

Completion and Plugging Reports

Hydraulic Fracture Stimulation using Diesel Fuel: Most operators in Texas do not use diesel fuel in hydraulic fracturing fluids. Section 322 of the Energy Policy Act of 2005 amended the Underground Injection Control (UIC) portion of the federal Safe Drinking Water Act (42 USC 300h(d)) to define "underground Injection" to *EXCLUDE* " ...the underground injection of fluids or propping agents (*other than diesel fluels*) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." (italic and underlining added.) Therefore, hydraulic fracturing may be subject to regulation under the federal UIC regulations if diesel fuel is injected or used as a propping agent. EPA defined "diesel fuel" using the following five (5) Chemical Abstract Service numbers: 68334-30-5 Primary Name: Fuels, diesel; 68476-34-6 Primary Name: Fuels, diesel, No. 2; 68476-30-2 Primary Name: Fuel oil No. 2; 68476-31-3 Primary Nmae: Fuel oil, No. 4; and 8008-20-6 Primary Name: Kerosene. As a result, an injection well permit would be required before performing hydraulic fracture stimulation using diesel fuel as defined by EPA on any well in Texas. Hydraulic fracture stimulation using diesel fuel as defined by EPA on a well in Texas without an injection well permit could result in enforcement action.

Producing Well. Statewide Rule 16 states that the operator of a well shall file with the Commission the appropriate completion report within thirty (30) days after completion of the well or within ninety (90) days after the date on which the drilling operation is completed, whichever is earlier. Completion of the well in a field authorized by this permit voids the permit for all other fields included in the permit unless the operator indicates on the initial completion report that the well is to be a dual or multiple completion and promptly submits an application for multiple completion. All zones are required to be completed before the expiration date on the existing permit. Statewide Rule 40(d) requires that upon successful completion of a well in the same reservoir as any other well previously assigned the same acreage, proration plats and P-15s (if required) must be submitted with no double assignment of acreage.

Dry or Noncommercial Hole. Statewide Rule 14(b)(2) prohibits suspension of operations on each dry or non-commercial well without plugging unless the hole is cased and the casing is cemented in compliance with Commission rules. If properly cased, Statewide Rule 14(b)(2) requires that plugging operations must begin within a period of one (1) year after drilling or operations have ceased. Plugging operations must proceed with due diligence until completed. An extension to the one-year plugging requirement may be granted under the provisions stated in Statewide Rule 14(b)(2).

Intention to Plug. The operator must file a Form W-3A (Notice of Intention to Plug and Abandon) with the district office at least five (5) days prior to beginning plugging operations. If, however, a drilling rig is already at work on location and ready to begin plugging operations, the district director or the director's delegate may waive this requirement upon request, and verbally approve the proposed plugging procedures.

***Notification of Plugging a Dry Hole.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of four (4) hours prior to beginning plugging operations. The individual giving the notification MUST be able to advise the district office of the drilling permit number and all water protection depths for that location as stated in the Texas Commission on Environmental Quality letter.

DIRECT INQUIRIES TO: DRILLING PERMIT SECTION, OIL AND GAS DIVISION

PHONE
(512) 463-6751

MAIL:
PO Box 12967
Austin, Texas, 78711-2967

9.1.19

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842441	Jul 18, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-109-33362	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	962.7

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HORSESHOESPRINGS STATE 113-10	2H
LOCATION	TOTAL DEPTH
14.71 miles SW direction from ORLA	14000

Section, Block and/or Survey

SECTION 10 BLOCK 113 ABSTRACT 5093

SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
970 ft. NORTH 1346 ft. EAST	100 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
970 ft. NORTH 1346 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
PHANTOM (WOLFCAMP)	962.70	12,500	2H	08
HORSESHOESPRINGS STATE 113-10	100		607	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: No allowable will be assigned until acreage assigned to the HORSESHOESPRINGS STATE 113-10 #2H well is reassigned to accommodate the completion of this well.
Permitted for gas only.
This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office.
Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 100.0 F NORTH L
1551.0 F EAST L
Terminus Location
BH County: CULBERSON
Section: 15 Block: 113 Abstract: 1266
Survey: PSL / HICKS, W H
Lease Lines: 50.0 F SOUTH L
1551.0 F EAST L
Survey Lines: 2598.0 F NORTH L
1551.0 F EAST L

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	01 August 2018	**GAU Number:**	202021

Attention:	BHP BILLITON PET(TXLA OP) 1500 POST OAK BLVD HOUSTON, TX 77056	**API Number:**	
		County:	CULBERSON
		Lease Name:	Horseshoesprings State 113-
		Lease Number:	
Operator No.:	068596	**Well Number:**	2H
		Total Vertical Depth:	14000
		Latitude:	31.741740
		Longitude:	-104.138796
		Datum:	NAD27

Purpose: New Production Well

Location: Survey-PSL; Abstract-5093; Block-10; Section-113

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 325 feet, must be protected.

This recommendation is applicable for all wells drilled in this NE/4 Section 10.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 07/16/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

01.41.9

CHRISTI CRADDICK, CHAIRMAN
DAVID PORTER, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON, PH.D.
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

MINOR PERMIT TO TREAT DOMESTIC WASTEWATER

Permit No. MPGW-A18-0926-D08
Permit Effective **7/17/2018**

BHP BILLITON PET (TXLA OP) CO
1360 POST OAK BLVD, STE. 150
HOUSTON, TX 77056

Based on information contained in the original application received 7/16/2018, and additional information received to date, you are hereby authorized to treat, recycle, and reuse domestic wastewater as described herein:

Phantom (Wolfcamp), **Horseshoesprings State 113-10**
2H (842441); 3H (842442); 4H (842443)
Latitude, Longitude: 31.741838° & -103.139134°
Reeves County, Texas
RRC District 08, Midland

This minor permit grants authority to store, handle, treat, recycle, and reuse certain non-hazardous domestic wastewater in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and the following conditions:

1. The effective date of this permit is **7/17/2018**, and the authority granted by this permit expires on **12/1/2018**.
2. This permit authorizes the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites for use down-hole and/or for dust suppression and controlled irrigation purposes as specified in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached to and incorporated into this permit as **Permit Appendix A**. Treatment and reuse of the waste streams is granted for use at the above referenced location(s).
3. This permit does not authorize the discharge of any domestic wastewater or waste streams generated from mobile drinking water treatment systems into any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other body of surface water.

07.17.8

4. Residual solids accumulated during the treatment process must be removed and transported by a Texas Commission on Environmental Quality (TCEQ) registered sludge transporter to a TCEQ permitted disposal facility approved to receive and manage domestic sewage prior to treatment system relocation.
5. Unless otherwise required by conditions of this permit, operation of the treatment system(s) and reuse of the treated waste streams must be in accordance with the information represented in the permit application and information contained in the "APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES" (Domestic Wastewater Application Worksheet), which is attached to and incorporated into this permit as **Permit Appendix B**.
6. A waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes.
7. If treated domestic wastewater and mobile drinking water treatment system wastewater are commingled, the more stringent requirements will apply, unless otherwise indicated.
8. If treated domestic wastewater or wastewater from mobile drinking water treatment systems is stored for greater than seven days, a chlorine residual between 2 and 3 part per million (ppm) must be maintained.
9. For treated domestic wastewater, no more than 5,000 gallons per day of pre-treated domestic wastewater may be received and processed.
10. The treated domestic wastewater and drinking water treatment system wastewater must be analyzed as indicated for the Parameters listed in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**. All samples shall be representative of the respective waste streams. All sample acquisition, preservation, and analysis must be performed according to procedures specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 136. The procedures used to preserve the samples and analytical methods used shall be reported.
11. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.
12. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or accelerator proposed to be used in the treatment of waste at the facility that was not identified in the initial application. Storage of the chemicals must be in accordance with the manufacturers' specifications and must be maintained in a leak free condition.

13. Prior to recycling and reuse, the treated domestic wastewater must be stored in the 20-mil high density polyethylene (HDPE) on-site reserve pit with a permeability less than or equal to 1 x 10^{-7} cm/s. Earthen berms must be constructed around the pit and must be compacted or constructed of material that meets 95% standard Proctor (ASTM D-698) or 90-92% modified Proctor (ASTM D-1557) density. The berm shall be constructed to a height of at least two feet and shall maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate storm water within the waste management units.
14. Upon completion of the project, a report detailing all relevant activities for the duration of the permit must be submitted including:
    a. The total number of days domestic wastewater and/or mobile drinking water treatment system wastewater is reused or applied after treatment.
    b. The total volume of each type of waste received for treatment.
    c. The total volume of treated effluent for each type of reuse method (down-hole, controlled irrigation, dust suppression).
    d. A table of the water treatment analytical results, sampling dates, corresponding analytical reports, and chain of custody for the Parameters required to be analyzed in the "SAMPLE CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**.
15. All reports must be certified as follows: "I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my direct supervision and direction, and that data and facts stated therein are true and complete to the best of my knowledge."
16. Water treatment vessels and equipment must be maintained in good operating condition for the duration of the permit.
17. Any changes affecting this permit must be reported to Technical Permitting in Austin or the appropriate District Office in order for the Railroad Commission of Texas (RRC) to determine whether a permit amendment is necessary.
18. This permit may be considered for administrative renewal upon review by the RRC. Submit any request for renewal at least 30 days prior to this permit's expiration date.
19. Failure to comply with any condition of this minor permit shall be cause for modification, suspension, termination, or cancellation of this minor permit if Technical Permitting determines that the permittee is in violation RRC rules.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

01.11.9

APPROVED AND ISSUED ON **JULY 17, 2018.**

Craig Pearson, PhD
District Director
Midland District Office

Attachments: Permit Appendices A and B

CC: RRC – District 08/ Midland
RRC – Environmental Permits and Support, Austin

07.17.8

PERMIT APPENDIX A

Sampling Criteria for Waste Streams

Permit No. MPGW-A18-0926-D08

8T.4T.8

SAMPLING CRITERIA FOR WASTE STREAMS

The RRC has jurisdiction over the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites. The term domestic wastewater means wastewater that originates primarily from kitchen, bathroom, and laundry sources, including wastes from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. The term "mobile drinking water treatment system wastewater" means wastewater generated from the treatment of groundwater for drinking water purposes, including reverse osmosis reject water. The following analyses are required for each specific end use of the treated wastewater:

TOTAL ESTIMATED VOLUME

The estimated daily volume of the treated and recycled waste stream from all sources is presented below. The total volume of the influent source of domestic wastewater must be less than 5,000 gallons per day.

Waste Stream	Reuse Method	Estimated Volume (GPD)
Treated Domestic Wastewater (< 5,000 GPD)	Down-hole	4,800
	Dust Suppression	0
	Controlled Irrigation	0
Mobile Drinking Water Treatment System Wastewater	Down-hole	800
	Dust Suppression	0
	Controlled Irrigation	

MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER

Mobile drinking water treatment system wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes. No permit or testing criteria is required for reuse of mobile drinking water treatment system wastewater for down-hole recycling purposes.

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted once per site location for the Parameters below:

PARAMETER	LIMITATION
Total Dissolved Solids (TDS) *Standard Method 2540 or equivalent*	Report mg/l
pH *EPA Method 9045 or equivalent*	Report SU
Electrical Conductivity (EC)	Report mmhos/cm

TREATED DOMESTIC WASTEWATER

Treated domestic wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes; however, a waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes. Each specific end use requires different testing requirements as described below.

- **Down-hole purposes:** Quality assurance sampling and analysis of the treated effluent utilized for down-hole purposes must be conducted every fourteen (14) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 80 milligrams per liter (mg/l)
Escherichia coli (E-Coli)	≤ 800 CFU/100 milliliters (ml)
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 Standard Units (SU)

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted every seven (7) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 65 mg/l
E-Coli for "Dust Suppression"	≤ 200 CFU/100 ml
E-Coli for "Controlled Irrigation"	≤ 75 CFU/100 ml
Oil and Grease *EPA Method 1664*	≤ 30 mg/l
Total Chlorides *or site-specific background for surficial aquifer*	≤ 1,500 mg/l
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 SU

* Carbonaceous Biological/Biochemical Oxygen Demand ($CBOD_5$) may be substituted for BOD_5

PERMIT APPENDIX B

Domestic Wastewater Application Worksheet

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number
08	Reeves	Phanton (Wolfcamp)	State Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER	LATITUDE/LONGITUDE (Decimal Degrees)
Well # 2H/ DP#842441	LAT: 31.741865 / LONG:-104.139275

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 10/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

91.4.8

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
3H/ DP#842442	LAT: 31.741851 / LONG:-104.139204

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm: 5'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 11/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

91.41.8

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report)	OPERATOR P-5 NUMBER
BHP Billiton PET (TXLA OP) Co	068596
OPERATOR ADDRESS (including city, state, and zip code)	**TYPE OF FACILITY**
1500 Post Oak Blvd. Houston, Tx. 77056	Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
4H/ DP#842443	LAT: 31.741838 / LONG:-104.139134

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.

Liner Thickness: 20 ml

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application [ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Wastestream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 12/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

31.41.8

41.

File No. MF113061

Culberson County

Drilling Permit API 109-33362 Unit 7222

Date Filed: 09/06/2018

George P. Bush, Commissioner

By JM

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842443	Jul 18, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-109-33364	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	962.7

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HORSESHOESPRINGS STATE 113-10	4H
LOCATION	TOTAL DEPTH
14.71 miles SW direction from ORLA	14000

Section, Block and/or Survey
SECTION 10 BLOCK 113 ABSTRACT 5093
SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
980 ft. NORTH 1302 ft. EAST	100 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
980 ft. NORTH 1302 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
PHANTOM (WOLFCAMP)	962.70	12,500	4H	08
HORSESHOESPRINGS STATE 113-10	100		610	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: No allowable will be assigned until acreage assigned to the HORSESHOESPRINGS STATE 113-10 #2H well is reassigned to accommodate the completion of this well.
Permitted for gas only.
This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office.
Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 100.0 F NORTH L
331.0 F EAST L
Terminus Location
BH County: CULBERSON
Section: 15 Block: 113 Abstract: 1266
Survey: PSL / HICKS, W H
Lease Lines: 50.0 F SOUTH L
331.0 F EAST L
Survey Lines: 2598.0 F NORTH L
331.0 F EAST L

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842443	Jul 18, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-109-33364	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	962.7

OPERATOR 068596
BHP BILLITON PET(TXLA OP) CO
1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HORSESHOESPRINGS STATE 113-10	4H
LOCATION	TOTAL DEPTH
14.71 miles SW direction from ORLA	14000

Section, Block and/or Survey
SECTION 10 BLOCK 113 ABSTRACT 5093
SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
980 ft. NORTH 1302 ft. EAST	100 ft.
DISTANCE TO LEASE LINES	DISTANCE TO NEAREST WELL ON LEASE
980 ft. NORTH 1302 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:
* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

The designated interval, for one or more of the fields approved on this permit, appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

SWR #13 Formation Data

CULBERSON (109) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	450	450		1	12/17/2013
FORD-DELAWARE	2,500	2,500		2	12/17/2013
DELAWARE	2,600	3,400		3	12/17/2013
CHERRY CANYON	3,600	5,400		4	12/17/2013
BONE SPRINGS	6,150	6,150		5	12/17/2013
MISSISSIPPIAN	8,900	8,900		6	12/17/2013
WOLFCAMP	7,900	9,100		7	12/17/2013
ATOKA	11,600	11,600		8	12/17/2013
MORROW	11,800	11,800		9	12/17/2013
STRAWN	5,750	12,800		10	12/17/2013
SILURIAN	15,400	15,400		11	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information.
http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

01.41.9

Railroad Commission of Texas

PERMIT TO DRILL, RE-COMPLETE, OR RE-ENTER ON REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

CONDITIONS AND INSTRUCTIONS

Permit Invalidation. It is the operator's responsibility to make sure that the permitted location complies with Commission density and spacing rules in effect on the spud date. The permit becomes invalid automatically if, because of a field rule change or the drilling of another well, the stated location is not in compliance with Commission field rules on the spud date. If this occurs, application for an exception to Statewide Rules 37 and 38 must be made and a special permit granted prior to spudding. Failure to do so may result in an allowable not being assigned and/or enforcement procedures being initiated.

Notice Requirements. Per H.B 630, signed May 8, 2007, the operator is required to provide notice to the surface owner no later than the 15th business day after the Commission issues a permit to drill. Please refer to subchapter Q Sec. 91.751-91.755 of the Texas Natural Resources Code for applicability.

Permit expiration. This permit expires two (2) years from the date of issuance shown on the original permit. The permit period will not be extended.

Drilling Permit Number. The drilling permit number shown on the permit MUST be given as a reference with any notification to the district (see below), correspondence, or application concerning this permit.

Rule 37 Exception Permits. This Statewide Rule 37 exception permit is granted under either provision Rule 37 (h)(2)(A) or 37(h)(2)(B). Be advised that a permit granted under Rule 37(h)(2)(A), notice of application, is subject to the General Rules of Practice and Procedures and if a protest is received under Section 1.3, "Filing of Documents," and/or Section 1.4, "Computation of Time," the permit may be deemed invalid.

Before Drilling

Fresh Water Sand Protection. The operator must set and cement sufficient surface casing to protect all usable-quality water, as defined by the Railroad Commission of Texas (RRC) Groundwater Advisory Unit (GWAU). Before drilling a well, the operator must obtain a letter from the Railroad Commission of Texas stating the depth to which water needs protection, Write: Railroad Commission of Texas, Groundwater Advisory Unit (GWAU), P.O. Box 12967, Austin, TX 78711-3087. File a copy of the letter with the appropriate district office.

Accessing the Well Site. If an OPERATOR, well equipment TRANSPORTER or WELL service provider must access the well site from a roadway on the state highway system (Interstate, U.S. Highway, State Highway, Farm-to-Market Road, Ranch-to-Market Road, etc.), an access permit is required from TxDOT. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

Water Transport to Well Site. If an operator intends to transport water to the well site through a temporary pipeline laid above ground on the state's right-of-way, an additional TxDOT permit is required. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

*NOTIFICATION

The operator is **REQUIRED** to notify the district office when setting surface casing, intermediate casing, and production casing, or when plugging a dry hole. The district office **MUST** also be notified if the operator intends to re-enter a plugged well or re-complete a well into a different regulatory field. Time requirements are given below. The drilling permit number **MUST** be given with such notifications.

During Drilling

Permit at Drilling Site. A copy of the Form W-1 Drilling Permit Application, the location plat, a copy of Statewide Rule 13 alternate surface casing setting depth approval from the district office, if applicable, and this drilling permit must be kept at the permitted well site throughout drilling operations.

***Notification of Setting Casing.** The operator MUST call in notification to the appropriate district office (phone number shown the on permit) a minimum of eight (8) hours prior to the setting of surface casing, intermediate casing, AND production casing. The individual giving notification MUST be able to advise the district office of the drilling permit number.

***Notification of Re-completion/Re-entry.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of eight (8) hours prior to the initiation of drilling or re-completion operations. The individual giving notification MUST be able to advise the district office of the drilling permit number.

Completion and Plugging Reports

Hydraulic Fracture Stimulation using Diesel Fuel: Most operators in Texas do not use diesel fuel in hydraulic fracturing fluids. Section 322 of the Energy Policy Act of 2005 amended the Underground Injection Control (UIC) portion of the federal Safe Drinking Water Act (42 USC 300h(d)) to define "underground Injection" to *EXCLUDE* " ...the underground injection of fluids or propping agents (*other than diesel fluels*) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." (italic and underlining added.) Therefore, hydraulic fracturing may be subject to regulation under the federal UIC regulations if diesel fuel is injected or used as a propping agent. EPA defined "diesel fuel" using the following five (5) Chemical Abstract Service numbers: 68334-30-5 Primary Name: Fuels, diesel; 68476-34-6 Primary Name: Fuels, diesel, No. 2; 68476-30-2 Primary Name: Fuel oil No. 2; 68476-31-3 Primary Nmae: Fuel oil, No. 4; and 8008-20-6 Primary Name: Kerosene. As a result, an injection well permit would be required before performing hydraulic fracture stimulation using diesel fuel as defined by EPA on any well in Texas. Hydraulic fracture stimulation using diesel fuel as defined by EPA on a well in Texas without an injection well permit could result in enforcement action.

Producing Well. Statewide Rule 16 states that the operator of a well shall file with the Commission the appropriate completion report within thirty (30) days after completion of the well or within ninety (90) days after the date on which the drilling operation is completed, whichever is earlier. Completion of the well in a field authorized by this permit voids the permit for all other fields included in the permit unless the operator indicates on the initial completion report that the well is to be a dual or multiple completion and promptly submits an application for multiple completion. All zones are required to be completed before the expiration date on the existing permit. Statewide Rule 40(d) requires that upon successful completion of a well in the same reservoir as any other well previously assigned the same acreage, proration plats and P-15s (if required) must be submitted with no double assignment of acreage.

Dry or Noncommercial Hole. Statewide Rule 14(b)(2) prohibits suspension of operations on each dry or non-commercial well without plugging unless the hole is cased and the casing is cemented in compliance with Commission rules. If properly cased, Statewide Rule 14(b)(2) requires that plugging operations must begin within a period of one (1) year after drilling or operations have ceased. Plugging operations must proceed with due diligence until completed. An extension to the one-year plugging requirement may be granted under the provisions stated in Statewide Rule 14(b)(2).

Intention to Plug. The operator must file a Form W-3A (Notice of Intention to Plug and Abandon) with the district office at least five (5) days prior to beginning plugging operations. If, however, a drilling rig is already at work on location and ready to begin plugging operations, the district director or the director's delegate may waive this requirement upon request, and verbally approve the proposed plugging procedures.

***Notification of Plugging a Dry Hole.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of four (4) hours prior to beginning plugging operations. The individual giving the notification MUST be able to advise the district office of the drilling permit number and all water protection depths for that location as stated in the Texas Commission on Environmental Quality letter.

DIRECT INQUIRIES TO: DRILLING PERMIT SECTION, OIL AND GAS DIVISION

PHONE
(512) 463-6751

MAIL:
PO Box 12967
Austin, Texas, 78711-2967

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	01 August 2018	**GAU Number:**	202023

Attention:	BHP BILLITON PET(TXLA OP) 1500 POST OAK BLVD HOUSTON, TX 77056	**API Number:**	
		County:	CULBERSON
		Lease Name:	Horseshoesprings State 113-
		Lease Number:	
Operator No.:	068596	**Well Number:**	4H
		Total Vertical Depth:	14000
		Latitude:	31.741713
		Longitude:	-104.138655
		Datum:	NAD27

Purpose: New Production Well

Location: Survey-PSL; Abstract-5093; Block-113; Section-10

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 325 feet, must be protected.

This recommendation is applicable for all wells drilled in this NE/4 Section 10.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 07/16/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

01.41.9

CHRISTI CRADDICK, CHAIRMAN
DAVID PORTER, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON, PH.D.
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

MINOR PERMIT TO TREAT DOMESTIC WASTEWATER

Permit No. MPGW-A18-0926-D08
Permit Effective **7/17/2018**

BHP BILLITON PET (TXLA OP) CO
1360 POST OAK BLVD, STE. 150
HOUSTON, TX 77056

Based on information contained in the original application received 7/16/2018, and additional information received to date, you are hereby authorized to treat, recycle, and reuse domestic wastewater as described herein:

Phantom (Wolfcamp), **Horseshoesprings State 113-10**
2H (842441); 3H (842442); 4H (842443)
Latitude, Longitude: 31.741838° & -103.139134°
Reeves County, Texas
RRC District 08, Midland

This minor permit grants authority to store, handle, treat, recycle, and reuse certain non-hazardous domestic wastewater in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and the following conditions:

1. The effective date of this permit is **7/17/2018**, and the authority granted by this permit expires on **12/1/2018**.
2. This permit authorizes the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites for use down-hole and/or for dust suppression and controlled irrigation purposes as specified in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached to and incorporated into this permit as **Permit Appendix A**. Treatment and reuse of the waste streams is granted for use at the above referenced location(s).
3. This permit does not authorize the discharge of any domestic wastewater or waste streams generated from mobile drinking water treatment systems into any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other body of surface water.

9.4.9

4. Residual solids accumulated during the treatment process must be removed and transported by a Texas Commission on Environmental Quality (TCEQ) registered sludge transporter to a TCEQ permitted disposal facility approved to receive and manage domestic sewage prior to treatment system relocation.
5. Unless otherwise required by conditions of this permit, operation of the treatment system(s) and reuse of the treated waste streams must be in accordance with the information represented in the permit application and information contained in the "APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES" (Domestic Wastewater Application Worksheet), which is attached to and incorporated into this permit as **Permit Appendix B**.
6. A waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes.
7. If treated domestic wastewater and mobile drinking water treatment system wastewater are commingled, the more stringent requirements will apply, unless otherwise indicated.
8. If treated domestic wastewater or wastewater from mobile drinking water treatment systems is stored for greater than seven days, a chlorine residual between 2 and 3 part per million (ppm) must be maintained.
9. For treated domestic wastewater, no more than 5,000 gallons per day of pre-treated domestic wastewater may be received and processed.
10. The treated domestic wastewater and drinking water treatment system wastewater must be analyzed as indicated for the Parameters listed in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**. All samples shall be representative of the respective waste streams. All sample acquisition, preservation, and analysis must be performed according to procedures specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 136. The procedures used to preserve the samples and analytical methods used shall be reported.
11. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.
12. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or accelerator proposed to be used in the treatment of waste at the facility that was not identified in the initial application. Storage of the chemicals must be in accordance with the manufacturers' specifications and must be maintained in a leak free condition.

13. Prior to recycling and reuse, the treated domestic wastewater must be stored in the 20-mil high density polyethylene (HDPE) on-site reserve pit with a permeability less than or equal to 1 x 10^{-7} cm/s. Earthen berms must be constructed around the pit and must be compacted or constructed of material that meets 95% standard Proctor (ASTM D-698) or 90-92% modified Proctor (ASTM D-1557) density. The berm shall be constructed to a height of at least two feet and shall maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate storm water within the waste management units.
14. Upon completion of the project, a report detailing all relevant activities for the duration of the permit must be submitted including:
    a. The total number of days domestic wastewater and/or mobile drinking water treatment system wastewater is reused or applied after treatment.
    b. The total volume of each type of waste received for treatment.
    c. The total volume of treated effluent for each type of reuse method (down-hole, controlled irrigation, dust suppression).
    d. A table of the water treatment analytical results, sampling dates, corresponding analytical reports, and chain of custody for the Parameters required to be analyzed in the "SAMPLE CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**.
15. All reports must be certified as follows: "I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my direct supervision and direction, and that data and facts stated therein are true and complete to the best of my knowledge."
16. Water treatment vessels and equipment must be maintained in good operating condition for the duration of the permit.
17. Any changes affecting this permit must be reported to Technical Permitting in Austin or the appropriate District Office in order for the Railroad Commission of Texas (RRC) to determine whether a permit amendment is necessary.
18. This permit may be considered for administrative renewal upon review by the RRC. Submit any request for renewal at least 30 days prior to this permit's expiration date.
19. Failure to comply with any condition of this minor permit shall be cause for modification, suspension, termination, or cancellation of this minor permit if Technical Permitting determines that the permittee is in violation RRC rules.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

01.11.9

APPROVED AND ISSUED ON **JULY 17, 2018.**

Craig Pearson, PhD
District Director
Midland District Office

Attachments: Permit Appendices A and B

CC: RRC – District 08/ Midland
RRC – Environmental Permits and Support, Austin

7.17.18

PERMIT APPENDIX A

Sampling Criteria for Waste Streams

Permit No. MPGW-A18-0926-D08

SAMPLING CRITERIA FOR WASTE STREAMS

The RRC has jurisdiction over the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites. The term domestic wastewater means wastewater that originates primarily from kitchen, bathroom, and laundry sources, including wastes from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. The term "mobile drinking water treatment system wastewater" means wastewater generated from the treatment of groundwater for drinking water purposes, including reverse osmosis reject water. The following analyses are required for each specific end use of the treated wastewater:

TOTAL ESTIMATED VOLUME

The estimated daily volume of the treated and recycled waste stream from all sources is presented below. The total volume of the influent source of domestic wastewater must be less than 5,000 gallons per day.

Waste Stream	Reuse Method	Estimated Volume (GPD)
Treated Domestic Wastewater (< 5,000 GPD)	Down-hole	4,800
	Dust Suppression	0
	Controlled Irrigation	0
Mobile Drinking Water Treatment System Wastewater	Down-hole	800
	Dust Suppression	0
	Controlled Irrigation	

MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER

Mobile drinking water treatment system wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes. No permit or testing criteria is required for reuse of mobile drinking water treatment system wastewater for down-hole recycling purposes.

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted once per site location for the Parameters below:

PARAMETER	LIMITATION
Total Dissolved Solids (TDS) *Standard Method 2540 or equivalent*	Report mg/l
pH *EPA Method 9045 or equivalent*	Report SU
Electrical Conductivity (EC)	Report mmhos/cm

TREATED DOMESTIC WASTEWATER

Treated domestic wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes; however, a waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes. Each specific end use requires different testing requirements as described below.

- **Down-hole purposes:** Quality assurance sampling and analysis of the treated effluent utilized for down-hole purposes must be conducted every fourteen (14) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 80 milligrams per liter (mg/l)
Escherichia coli (E-Coli)	≤ 800 CFU/100 milliliters (ml)
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 Standard Units (SU)

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted every seven (7) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 65 mg/l
E-Coli for "Dust Suppression"	≤ 200 CFU/100 ml
E-Coli for "Controlled Irrigation"	≤ 75 CFU/100 ml
Oil and Grease *EPA Method 1664*	≤ 30 mg/l
Total Chlorides *or site-specific background for surficial aquifer*	≤ 1,500 mg/l
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 SU

* Carbonaceous Biological/Biochemical Oxygen Demand ($CBOD_5$) may be substituted for BOD_5

PERMIT APPENDIX B

Domestic Wastewater Application Worksheet

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
2H/ DP#842441	LAT: 31.741865 / LONG:-104.139275

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm: 5'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 10/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

8.4.8

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
3H/ DP#842442	LAT: 31.741851 / LONG:-104.139204

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berms: 5'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 11/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

STATS

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
4BH/ DP#842443	LAT: 31.741838 / LONG:-104.139134

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

- [X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800
- [X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.

RE-USE METHOD OF WASTEWATER AFTER TREATMENT — ESTIMATED TREATED EFFLUENT VOLUME (GPD)

- [X] Down-hole Application — Down-hole: 4800
- [ ] Controlled Irrigation — [ ] Dust Suppressant — Surface Application: n/a

Liner Thickness 20 ml

Pit Capacity 10,000 bbls (65K barrels solid)

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 12/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

4.4.3

42.

File No. MF113061

Culberson County

Drilling Permit API 109-33364 Unit 7222

Date Filed: 09/06/2018

George P. Bush, Commissioner

By JM

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842442	Jul 18, 2018	* 08
API NUMBER	**FORM W-1 RECEIVED**	**COUNTY**
42-109-33363	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	**WELLBORE PROFILE(S)**	**ACRES**
NEW DRILL	Horizontal	962.7

OPERATOR 068596

BHP BILLITON PET(TXLA OP) CO

1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME	WELL NUMBER
HORSESHOESPRINGS STATE 113-10	3H
LOCATION	**TOTAL DEPTH**
14.71 miles SW direction from ORLA	14000

Section, Block and/or Survey

SECTION 10 BLOCK 113 ABSTRACT 5093

SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES	DISTANCE TO NEAREST LEASE LINE
975 ft. NORTH 1324 ft. EAST	100 ft.
DISTANCE TO LEASE LINES	**DISTANCE TO NEAREST WELL ON LEASE**
975 ft. NORTH 1324 ft. EAST	See FIELD(s) Below

FIELD(s) and LIMITATIONS:

* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST
PHANTOM (WOLFCAMP)	962.70	12,500	3H	08
HORSESHOESPRINGS STATE 113-10	100		610	

WELLBORE PROFILE(s) FOR FIELD: Horizontal

RESTRICTIONS: No allowable will be assigned until acreage assigned to the HORSESHOESPRINGS STATE 113-10 #2H well is reassigned to accommodate the completion of this well.
Permitted for gas only.
This is a hydrogen sulfide field. Hydrogen Sulfide Fields with perforations must be isolated and tested per State Wide Rule 36 and a Form H-9 filed with the district office.
Fields with SWR 10 authority to downhole commingle must be isolated and tested individually prior to commingling production.

Lateral: TH1
Penetration Point Location
Lease Lines: 100.0 F NORTH L
941.0 F EAST L
Terminus Location
BH County: CULBERSON
Section: 15 Block: 113 Abstract: 1266
Survey: PSL / HICKS, W H
Lease Lines: 50.0 F SOUTH L
941.0 F EAST L
Survey Lines: 2598.0 F NORTH L
941.0 F EAST L

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER	DATE PERMIT ISSUED OR AMENDED	DISTRICT
842442	Jul 18, 2018	* 08
API NUMBER	FORM W-1 RECEIVED	COUNTY
42-109-33363	Jul 16, 2018	CULBERSON
TYPE OF OPERATION	WELLBORE PROFILE(S)	ACRES
NEW DRILL	Horizontal	962.7

OPERATOR 068596
BHP BILLITON PET(TXLA OP) CO
1500 POST OAK BLVD
HOUSTON, TX 77056-0000

NOTICE
This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored.
District Office Telephone No:
(432) 684-5581

LEASE NAME: HORSESHOESPRINGS STATE 113-10
WELL NUMBER: 3H

LOCATION: 14.71 miles SW direction from ORLA
TOTAL DEPTH: 14000

Section, Block and/or Survey
SECTION 10 BLOCK 113 ABSTRACT 5093
SURVEY PSL / COLLIER, H T

DISTANCE TO SURVEY LINES: 975 ft. NORTH 1324 ft. EAST
DISTANCE TO NEAREST LEASE LINE: 100 ft.

DISTANCE TO LEASE LINES: 975 ft. NORTH 1324 ft. EAST
DISTANCE TO NEAREST WELL ON LEASE: See FIELD(s) Below

FIELD(s) and LIMITATIONS:
* SEE FIELD DISTRICT FOR REPORTING PURPOSES *

FIELD NAME / LEASE NAME	ACRES / NEAREST LEASE	DEPTH	WELL # / NEAREST WE	DIST

THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS

This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.

This well must comply to the new SWR 3.13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations that have been identified for the county in which you are drilling the well in.

The designated interval, for one or more of the fields approved on this permit, appears to overlap with the designated interval of another field or fields in this district. In the case of conflicting designated intervals you will be required to be consistent in field designation on this lease. Further, if the designated interval overlap of wells on this lease results in an actual or potential double assignment of reservoir and the applicant cannot conclusively demonstrate that there is no double assignment, the permitted well may not be assigned an allowable until the conflict is resolved. Because of the overlapping designated intervals in this area, issuance of this permit does not guarantee that the completion of the well will be approved or that the well will receive an allowable in any given field, even if that field is listed on the approved permit application.

Railroad Commission of Texas

PERMIT TO DRILL, RE-COMPLETE, OR RE-ENTER ON REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

CONDITIONS AND INSTRUCTIONS

Permit Invalidation. It is the operator's responsibility to make sure that the permitted location complies with Commission density and spacing rules in effect on the spud date. The permit becomes invalid automatically if, because of a field rule change or the drilling of another well, the stated location is not in compliance with Commission field rules on the spud date. If this occurs, application for an exception to Statewide Rules 37 and 38 must be made and a special permit granted prior to spudding. Failure to do so may result in an allowable not being assigned and/or enforcement procedures being initiated.

Notice Requirements. Per H.B 630, signed May 8, 2007, the operator is required to provide notice to the surface owner no later than the 15th business day after the Commission issues a permit to drill. Please refer to subchapter Q Sec. 91.751-91.755 of the Texas Natural Resources Code for applicability.

Permit expiration. This permit expires two (2) years from the date of issuance shown on the original permit. The permit period will not be extended.

Drilling Permit Number. The drilling permit number shown on the permit MUST be given as a reference with any notification to the district (see below), correspondence, or application concerning this permit.

Rule 37 Exception Permits. This Statewide Rule 37 exception permit is granted under either provision Rule 37 (h)(2)(A) or 37(h)(2)(B). Be advised that a permit granted under Rule 37(h)(2)(A), notice of application, is subject to the General Rules of Practice and Procedures and if a protest is received under Section 1.3, "Filing of Documents," and/or Section 1.4, "Computation of Time," the permit may be deemed invalid.

Before Drilling

Fresh Water Sand Protection. The operator must set and cement sufficient surface casing to protect all usable-quality water, as defined by the Railroad Commission of Texas (RRC) Groundwater Advisory Unit (GWAU). Before drilling a well, the operator must obtain a letter from the Railroad Commission of Texas stating the depth to which water needs protection, Write: Railroad Commission of Texas, Groundwater Advisory Unit (GWAU), P.O. Box 12967, Austin, TX 78711-3087. File a copy of the letter with the appropriate district office.

Accessing the Well Site. If an OPERATOR, well equipment TRANSPORTER or WELL service provider must access the well site from a roadway on the state highway system (Interstate, U.S. Highway, State Highway, Farm-to-Market Road, Ranch-to-Market Road, etc.), an access permit is required from TxDOT. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

Water Transport to Well Site. If an operator intends to transport water to the well site through a temporary pipeline laid above ground on the state's right-of-way, an additional TxDOT permit is required. Permit applications are submitted to the respective TxDOT Area Office serving the county where the well is located.

*NOTIFICATION

The operator is **REQUIRED** to notify the district office when setting surface casing, intermediate casing, and production casing, or when plugging a dry hole. The district office **MUST** also be notified if the operator intends to re-enter a plugged well or re-complete a well into a different regulatory field. Time requirements are given below. The drilling permit number **MUST** be given with such notifications.

During Drilling

Permit at Drilling Site. A copy of the Form W-1 Drilling Permit Application, the location plat, a copy of Statewide Rule 13 alternate surface casing setting depth approval from the district office, if applicable, and this drilling permit must be kept at the permitted well site throughout drilling operations.

***Notification of Setting Casing.** The operator MUST call in notification to the appropriate district office (phone number shown the on permit) a minimum of eight (8) hours prior to the setting of surface casing, intermediate casing, AND production casing. The individual giving notification MUST be able to advise the district office of the drilling permit number.

***Notification of Re-completion/Re-entry.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of eight (8) hours prior to the initiation of drilling or re-completion operations. The individual giving notification MUST be able to advise the district office of the drilling permit number.

Completion and Plugging Reports

Hydraulic Fracture Stimulation using Diesel Fuel: Most operators in Texas do not use diesel fuel in hydraulic fracturing fluids. Section 322 of the Energy Policy Act of 2005 amended the Underground Injection Control (UIC) portion of the federal Safe Drinking Water Act (42 USC 300h(d)) to define "underground Injection" to *EXCLUDE* " ...the underground injection of fluids or propping agents (*other than diesel fluels*) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." (italic and underlining added.) Therefore, hydraulic fracturing may be subject to regulation under the federal UIC regulations if diesel fuel is injected or used as a propping agent. EPA defined "diesel fuel" using the following five (5) Chemical Abstract Service numbers: 68334-30-5 Primary Name: Fuels, diesel; 68476-34-6 Primary Name: Fuels, diesel, No. 2; 68476-30-2 Primary Name: Fuel oil No. 2; 68476-31-3 Primary Nmae: Fuel oil, No. 4; and 8008-20-6 Primary Name: Kerosene. As a result, an injection well permit would be required before performing hydraulic fracture stimulation using diesel fuel as defined by EPA on any well in Texas. Hydraulic fracture stimulation using diesel fuel as defined by EPA on a well in Texas without an injection well permit could result in enforcement action.

Producing Well. Statewide Rule 16 states that the operator of a well shall file with the Commission the appropriate completion report within thirty (30) days after completion of the well or within ninety (90) days after the date on which the drilling operation is completed, whichever is earlier. Completion of the well in a field authorized by this permit voids the permit for all other fields included in the permit unless the operator indicates on the initial completion report that the well is to be a dual or multiple completion and promptly submits an application for multiple completion. All zones are required to be completed before the expiration date on the existing permit. Statewide Rule 40(d) requires that upon successful completion of a well in the same reservoir as any other well previously assigned the same acreage, proration plats and P-15s (if required) must be submitted with no double assignment of acreage.

Dry or Noncommercial Hole. Statewide Rule 14(b)(2) prohibits suspension of operations on each dry or non-commercial well without plugging unless the hole is cased and the casing is cemented in compliance with Commission rules. If properly cased, Statewide Rule 14(b)(2) requires that plugging operations must begin within a period of one (1) year after drilling or operations have ceased. Plugging operations must proceed with due diligence until completed. An extension to the one-year plugging requirement may be granted under the provisions stated in Statewide Rule 14(b)(2).

Intention to Plug. The operator must file a Form W-3A (Notice of Intention to Plug and Abandon) with the district office at least five (5) days prior to beginning plugging operations. If, however, a drilling rig is already at work on location and ready to begin plugging operations, the district director or the director's delegate may waive this requirement upon request, and verbally approve the proposed plugging procedures.

***Notification of Plugging a Dry Hole.** The operator MUST call in notification to the appropriate district office (phone number shown on permit) a minimum of four (4) hours prior to beginning plugging operations. The individual giving the notification MUST be able to advise the district office of the drilling permit number and all water protection depths for that location as stated in the Texas Commission on Environmental Quality letter.

DIRECT INQUIRIES TO: DRILLING PERMIT SECTION, OIL AND GAS DIVISION

PHONE
(512) 463-6751

MAIL:
PO Box 12967
Austin, Texas, 78711-2967

RAILROAD COMMISSION OF TEXAS
OIL & GAS DIVISION

SWR #13 Formation Data

CULBERSON (109) County

Formation	Shallow Top	Deep Top	Remarks	Geological Order	Effective Date
RUSTLER	450	450		1	12/17/2013
FORD-DELAWARE	2,500	2,500		2	12/17/2013
DELAWARE	2,600	3,400		3	12/17/2013
CHERRY CANYON	3,600	5,400		4	12/17/2013
BONE SPRINGS	6,150	6,150		5	12/17/2013
MISSISSIPPIAN	8,900	8,900		6	12/17/2013
WOLFCAMP	7,900	9,100		7	12/17/2013
ATOKA	11,600	11,600		8	12/17/2013
MORROW	11,800	11,800		9	12/17/2013
STRAWN	5,750	12,800		10	12/17/2013
SILURIAN	15,400	15,400		11	12/17/2013

The above list may not be all inclusive, and may also include formations that do not intersect all wellbores. Formation "TOP" information listed reflects an estimated range based on geologic variances across the county. To clarify, the "Deep Top" is not the bottom of the formation; it is the deepest depth at which the "TOP" of the formation has been or might be encountered. This is a dynamic list subject to updates and revisions. It is the operator's responsibility to make sure that at the time of spudding the well the most current list is being referenced. Refer to the RRC website at the following address for the most recent information. http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info

GROUNDWATER PROTECTION DETERMINATION

Form GW-2

Groundwater Advisory Unit

Date Issued:	08 August 2018	**GAU Number:**	202022

Attention:	BHP BILLITON PET(TXLA OP) 1500 POST OAK BLVD HOUSTON, TX 77056	**API Number:**	
		County:	CULBERSON
		Lease Name:	Horseshoesprings State 113-
		Lease Number:	
Operator No.:	068596	**Well Number:**	3H
		Total Vertical Depth:	14000
		Latitude:	31.741726
		Longitude:	-104.138725
		Datum:	NAD27

Purpose: New Production Well

Location: Survey-PSL; Abstract-5093; Block-10; Section-113

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 325 feet, must be protected.

This recommendation is applicable for all wells drilled in this NE/4 Section 10.

Please send Gamma/Porosity log of this well when it is available.

Note: Unless stated otherwise, this recommendation is intended to apply only to the subject well and not for area-wide use. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 07/23/2018. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

9.14.9

CHRISTI CRADDICK, CHAIRMAN
DAVID PORTER, COMMISSIONER
RYAN SITTON, COMMISSIONER

LORI WROTENBERY
DIRECTOR, OIL AND GAS DIVISION
D. CRAIG PEARSON, PH.D.
DISTRICT DIRECTOR

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

MINOR PERMIT TO TREAT DOMESTIC WASTEWATER

Permit No. MPGW-A18-0926-D08
Permit Effective **7/17/2018**

BHP BILLITON PET (TXLA OP) CO
1360 POST OAK BLVD, STE. 150
HOUSTON, TX 77056

Based on information contained in the original application received 7/16/2018, and additional information received to date, you are hereby authorized to treat, recycle, and reuse domestic wastewater as described herein:

Phantom (Wolfcamp), **Horseshoesprings State 113-10**
2H (842441); 3H (842442); 4H (842443)
Latitude, Longitude: 31.741838° & -103.139134°
Reeves County, Texas
RRC District 08, Midland

This minor permit grants authority to store, handle, treat, recycle, and reuse certain non-hazardous domestic wastewater in accordance with 16 Texas Administrative Code (TAC) §3.8 (Statewide Rule 8) and the following conditions:

1. The effective date of this permit is **7/17/2018**, and the authority granted by this permit expires on **12/1/2018**.
2. This permit authorizes the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites for use down-hole and/or for dust suppression and controlled irrigation purposes as specified in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached to and incorporated into this permit as **Permit Appendix A**. Treatment and reuse of the waste streams is granted for use at the above referenced location(s).
3. This permit does not authorize the discharge of any domestic wastewater or waste streams generated from mobile drinking water treatment systems into any watercourses or drainage ways, including any drainage ditch, dry creek, flowing creek, river, or any other body of surface water.

07.41.8

4. Residual solids accumulated during the treatment process must be removed and transported by a Texas Commission on Environmental Quality (TCEQ) registered sludge transporter to a TCEQ permitted disposal facility approved to receive and manage domestic sewage prior to treatment system relocation.
5. Unless otherwise required by conditions of this permit, operation of the treatment system(s) and reuse of the treated waste streams must be in accordance with the information represented in the permit application and information contained in the "APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES" (Domestic Wastewater Application Worksheet), which is attached to and incorporated into this permit as **Permit Appendix B**.
6. A waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes.
7. If treated domestic wastewater and mobile drinking water treatment system wastewater are commingled, the more stringent requirements will apply, unless otherwise indicated.
8. If treated domestic wastewater or wastewater from mobile drinking water treatment systems is stored for greater than seven days, a chlorine residual between 2 and 3 part per million (ppm) must be maintained.
9. For treated domestic wastewater, no more than 5,000 gallons per day of pre-treated domestic wastewater may be received and processed.
10. The treated domestic wastewater and drinking water treatment system wastewater must be analyzed as indicated for the Parameters listed in the "SAMPLING CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**. All samples shall be representative of the respective waste streams. All sample acquisition, preservation, and analysis must be performed according to procedures specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 136. The procedures used to preserve the samples and analytical methods used shall be reported.
11. All chemical laboratory analyses required to be performed in accordance with this permit must be performed using appropriate Environmental Protection Agency (EPA) methods or Standard Methods by an independent National Environmental Laboratory Accreditation Program (NELAP) certified laboratory neither owned nor operated by the permittee. Any sample collected for laboratory analysis must be collected and preserved in a manner appropriate for that analytical method as specified by 40 CFR, Part 136. All geotechnical testing is to be performed utilizing tests standardized by the American Society for Testing and Materials (ASTM) and certified by a Texas registered Professional Engineer.
12. Safety Data Sheets (SDS) must be submitted to Technical Permitting in Austin for any chemical or accelerator proposed to be used in the treatment of waste at the facility that was not identified in the initial application. Storage of the chemicals must be in accordance with the manufacturers' specifications and must be maintained in a leak free condition.

01.41.9

13. Prior to recycling and reuse, the treated domestic wastewater must be stored in the 20-mil high density polyethylene (HDPE) on-site reserve pit with a permeability less than or equal to 1 x 10^{-7} cm/s. Earthen berms must be constructed around the pit and must be compacted or constructed of material that meets 95% standard Proctor (ASTM D-698) or 90-92% modified Proctor (ASTM D-1557) density. The berm shall be constructed to a height of at least two feet and shall maintain a slope no steeper than a one to three (vertical to horizontal) ratio, unless constructed of concrete or equivalent material (firewalls). These structures must be used to divert non-contact storm water around the waste management areas and contain and isolate storm water within the waste management units.
14. Upon completion of the project, a report detailing all relevant activities for the duration of the permit must be submitted including:
    a. The total number of days domestic wastewater and/or mobile drinking water treatment system wastewater is reused or applied after treatment.
    b. The total volume of each type of waste received for treatment.
    c. The total volume of treated effluent for each type of reuse method (down-hole, controlled irrigation, dust suppression).
    d. A table of the water treatment analytical results, sampling dates, corresponding analytical reports, and chain of custody for the Parameters required to be analyzed in the "SAMPLE CRITERIA FOR WASTE STREAMS" document which is attached as **Permit Appendix A**.
15. All reports must be certified as follows: "I declare under penalties prescribed in Section 91.143, Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my direct supervision and direction, and that data and facts stated therein are true and complete to the best of my knowledge."
16. Water treatment vessels and equipment must be maintained in good operating condition for the duration of the permit.
17. Any changes affecting this permit must be reported to Technical Permitting in Austin or the appropriate District Office in order for the Railroad Commission of Texas (RRC) to determine whether a permit amendment is necessary.
18. This permit may be considered for administrative renewal upon review by the RRC. Submit any request for renewal at least 30 days prior to this permit's expiration date.
19. Failure to comply with any condition of this minor permit shall be cause for modification, suspension, termination, or cancellation of this minor permit if Technical Permitting determines that the permittee is in violation RRC rules.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

01.41.9

APPROVED AND ISSUED ON **JULY 17, 2018.**

Craig Pearson, PhD
District Director
Midland District Office

Attachments: Permit Appendices A and B

CC: RRC – District 08/ Midland
RRC – Environmental Permits and Support, Austin

07.17.8

PERMIT APPENDIX A

Sampling Criteria for Waste Streams

Permit No. MPGW-A18-0926-D08

8.14.8

SAMPLING CRITERIA FOR WASTE STREAMS

The RRC has jurisdiction over the on-site treatment and management of domestic wastewater generated at oil and gas drill sites and waste streams generated from mobile drinking water treatment systems located at and resulting from use exclusively at well sites. The term domestic wastewater means wastewater that originates primarily from kitchen, bathroom, and laundry sources, including wastes from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. The term "mobile drinking water treatment system wastewater" means wastewater generated from the treatment of groundwater for drinking water purposes, including reverse osmosis reject water. The following analyses are required for each specific end use of the treated wastewater:

TOTAL ESTIMATED VOLUME

The estimated daily volume of the treated and recycled waste stream from all sources is presented below. The total volume of the influent source of domestic wastewater must be less than 5,000 gallons per day.

Waste Stream	Reuse Method	Estimated Volume (GPD)
Treated Domestic Wastewater (< 5,000 GPD)	Down-hole	4,800
	Dust Suppression	0
	Controlled Irrigation	0
Mobile Drinking Water Treatment System Wastewater	Down-hole	800
	Dust Suppression	0
	Controlled Irrigation	

MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER

Mobile drinking water treatment system wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes. No permit or testing criteria is required for reuse of mobile drinking water treatment system wastewater for down-hole recycling purposes.

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted once per site location for the Parameters below:

PARAMETER	LIMITATION
Total Dissolved Solids (TDS) *Standard Method 2540 or equivalent*	Report mg/l
pH *EPA Method 9045 or equivalent*	Report SU
Electrical Conductivity (EC)	Report mmhos/cm

TREATED DOMESTIC WASTEWATER

Treated domestic wastewater can be recycled and reused for either down-hole purposes or dust suppression and/or controlled irrigation purposes; however, a waiver from the surface owner or proof that notice has been provided to the surface owner at least ten (10) days prior to reuse is required for any recycling of domestic wastewater other than for down-hole purposes. Each specific end use requires different testing requirements as described below.

- **Down-hole purposes:** Quality assurance sampling and analysis of the treated effluent utilized for down-hole purposes must be conducted every fourteen (14) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 80 milligrams per liter (mg/l)
Escherichia coli (E-Coli)	≤ 800 CFU/100 milliliters (ml)
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 Standard Units (SU)

- **Dust suppression and/or controlled irrigation purposes:** Quality assurance sampling and analysis of the treated effluent utilized for dust suppression and/or controlled irrigation purposes must be conducted every seven (7) days for the Parameters below.

PARAMETER	LIMITATION
Biological Oxygen Demand (BOD_5) / ($CBOD_5$) *	≤ 65 mg/l
E-Coli for "Dust Suppression"	≤ 200 CFU/100 ml
E-Coli for "Controlled Irrigation"	≤ 75 CFU/100 ml
Oil and Grease *EPA Method 1664*	≤ 30 mg/l
Total Chlorides *or site-specific background for surficial aquifer*	≤ 1,500 mg/l
Chlorine Residual (> 7 day storage) *EPA Method 334.0 or equivalent*	2 - 3 mg/l
pH *EPA Method 9045C or equivalent field method*	6.0 - 9.0 SU

* Carbonaceous Biological/Biochemical Oxygen Demand ($CBOD_5$) may be substituted for BOD_5

PERMIT APPENDIX B

Domestic Wastewater Application Worksheet

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER	LATITUDE/LONGITUDE (Decimal Degrees)
Well # 2H/ DP#842441	LAT: 31.741865 / LONG:-104.139275

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm: 6'

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 10/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

01.19

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
3H/ DP#842442	LAT: 31.741851 / LONG:-104.139204

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.
Liner Thickness: 20 ml
Pit Capacity: 10,000 bbls total (5K liquid/5K solid)
Berm(s)

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE WASTE

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120day permit effective 11/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: _____ Date: 07/16/2018

Name (print or type): Veronica Clanton Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

9.4.19

APPLICATION FOR BENEFICIAL RECYCLING OF TREATED DOMESTIC WASTEWATER AND MOBILE DRINKING WATER TREATMENT SYSTEM WASTEWATER AT DRILL SITES

Worksheet

OPERATOR NAME (as shown on P-5, Organization Report) BHP Billiton PET (TXLA OP) Co	OPERATOR P-5 NUMBER 068596
OPERATOR ADDRESS (including city, state, and zip code) 1500 Post Oak Blvd. Houston, Tx. 77056	TYPE OF FACILITY Drill Pad

RRC DISTRICT NO.	COUNTY	FIELD NAME	LEASE NAME AND Number State
08	Reeves	Phanton (Wolfcamp)	Horseshoesprings State 113-10

WELL NUMBER AND DRILLING PERMIT NUMBER Well #	LATITUDE/LONGITUDE (Decimal Degrees)
4BH/ DP#842443	LAT: 31.741838 / LONG:-104.139134

NAME OF CONTRACTOR PROVIDING THE TREATMENT SERVICES

Water Fleet LLC

DESCRIPTION OF THE WASTE STREAM AND ESTIMATED VOLUME OF WASTE RECEIVED (gallons per day, GPD)

[X] Domestic Wastewater (DW) — Volume of DW (GPD): 4800

[X] Mobile Drinking Water Treatment System Wastewater (MDW) — Volume of MDW (GPD): 800

STORAGE METHOD OF WASTEWATER BEFORE RECYCLING — [X] Lined Pit [ ] Above-Ground Tank

Provide details for pits (liner material, liner thickness, manufacturers' specifications, pit capacity, berms, etc.) and/or tanks (tank material, tank volume, tank pad, berms, etc.)

DW and MDW are both going to the lined reserve pit on site.

Liner Thickness: 20 ml

Pit Capacity: 10,000 bbls

RE-USE METHOD OF WASTEWATER AFTER TREATMENT

[X] Down-hole Application

[ ] Controlled Irrigation [ ] Dust Suppressant

ESTIMATED TREATED EFFLUENT VOLUME (GPD)

Down-hole: 4800

Surface Application: n/a

PRECAUTIONS TAKEN TO MINIMIZE EXPOSURE TO THE PUBLIC

Waste stream is piped to the reserve pit and discharged in a manner to prevent contact with personnel.

ADDITIONAL OR COMPLIMENTARY TECHNICAL INFORMATION

If possible could we get a total of 120 day permit effective 12/1 as the drill schedule could possible change.

PROOF OF LANDOWNER NOTICE (required for wastewater re-use as controlled irrigation or dust suppressant)

[ ] Attached [ ] Not Attached

"I certify that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge."

Signature: VC — Date: 07/16/2018

Name (print or type): Veronica Clanton — Email: veronica.clanton@bbhp.com

* Attachments may be used to explain or clarify any additional information

01.15

43.

File No. MF113061

Culberson County

Drilling Permit API 109-33363 Unit 7222

Date Filed: 09/06/2018

George P. Bush, Commissioner

By

✓MF113061 unit 7505
MF113603
MF115984
MF116836

BHP
Land Administration
P.O. Box 22719
Houston, TX 77227-9927
T (877) 311-1443
F (888) 484-3189
PetroleumOwnerRelations
Request@bhpbilliton.com

STATE OF TEXAS GLO
1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Division Order Instruction Sheet

We are pleased to deliver this Division Order which sets forth your share of production proceeds from the well indicated thereon and the name and address to which payments will be made. Please return one fully executed copy and retain the other copy for your records. Your Division Order contains information that will aid in your communication with BHP. When contacting us about any questions regarding your interest or Division Order, please have the Division Order in hand as it contains identifying information that will assist us in answering your questions.

WE ARE NOT ABLE TO ACCEPT ANY ALTERATIONS TO THIS DIVISION ORDER FORM.

SIGNATURES:

- Sign exactly as shown on the Division Order. If your signature is different, please enclose legal documentation authorizing the name change with your returned Division Order.
- Signatures by Agents, Attorneys-in-Fact, Guardians, or Trustees must be verified by attaching a copy of the recorded legal evidence of the rights vested in the signing party.
- In the event of multiple trustees/executors, all signatures are required unless documentation is provided evidencing authority to sign on behalf of all parties.
- An authorized official, with the name and title of the signing party printed beneath the signature, must execute for companies, corporations, or partnerships.
- All signatures must be witnessed. Notary is not required.

TAXPAYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER:

Include your Tax ID or Social Security Number in the space provided on your Division Order. Failure to furnish this number will result in 24% tax withholding in accordance with Section 3406 of the Internal Revenue Service Code, and any tax withheld will not be refundable by BHP.

ADDRESS & TITLE CHANGES:

- Please note any change of address directly on your Division Order
- Subsequent address changes must be submitted in writing either by mail, fax or email (a change of address form can be found at http://www.bhpbilliton.com/investor-centre/owner-relations).
- If a change in title occurs, please furnish us with a copy of the recorded deed or document transferring the title.

PAYMENTS: Royalty check payments are mailed on or before the 30th of each month. Our policy is to remit checks monthly when your account reaches $100, or once a year, whichever occurs first. We can reduce the minimum hold on your account from $100 to $25 upon written request.

PRIVACY: BHP respects the privacy of our owners. Please remember we are unable to release information to third parties on any ownership account without prior written authorization from the owner unless legally required. In order for us to discuss your lease, agreement, and/or royalty information with your appointed representative, we must be furnished with your written authorization.

CONTACT US: The following information will assist us in serving you: (1) name & owner number (2) county and state where well is located (3) well name and property number (4) telephone number with area code (5) nature of your inquiry

Owner Relations Call Center
Phone Number: 1-877-311-1443
Fax: 1-888-484-3189
E-mail: petroleumownerrelationsrequest@bhpbilliton.com

BHP
Land Administration
P O Box 22719
Houston, TX 77227-9927

01.23.01

SEE EXHIBIT A FOR LIST OF PROPERTY(IES) AND DECIMAL INTEREST(S) COVERED

The undersigned severally and not jointly certifies that it is the legal owner of the interest set out herein of all products produced from the property described herein:

THIS AGREEMENT DOES NOT AMEND ANY LEASE OR OPERATING AGREEMENT BETWEEN THE INTEREST OWNERS AND THE LESSEE OR OPERATOR OR ANY OTHER CONTRACTS FOR THE PURCHASE OF OIL OR GAS.

The following provisions apply to each interest owner ("owner") who executes this agreement and may not be altered as to its terms:

TERMS OF SALE: The undersigned will be paid in accordance with the division of interest set out herein. The payor shall pay all parties at the price agreed to by the operator for products to be sold pursuant to this Division Order. Purchaser shall compute quantity and make corrections for gravity and temperature and make deductions for impurities.

PAYMENT: From the effective date, payment is to be made monthly by payor's check or electronic funds transfer, based on this division of interest, for products run during the preceding calendar month from the property listed herein, less taxes required by law to be deducted and remitted by payor as purchaser. Payments of less than $100 may be accrued before disbursement until the total amount equals $100 or more, or until 12 months of proceeds accumulate, whichever occurs first. However, the payor may hold accumulated proceeds of less than $10 until production ceases or the payor's responsibility for making payment for production ceases, whichever occurs first. Payee agrees to refund to payor any amounts attributable to an interest or part of an interest that payee does not own.

INDEMNITY: The owner agrees to indemnify and hold payor harmless from all liability resulting from payments made to the owner in accordance with such division of interest, including but not limited to attorney fees or judgments in connection with any suit that affects the owner's interest to which payor is made a party.

DISPUTE; WITHHOLDING OF FUNDS: If a suit is filed that affects the interest of the owner, written notice shall be given to payor by the owner together with a copy of the complaint or petition filed.
In the event of a claim or dispute that affects title to the division of interest credited herein, payor is authorized to withhold payments accruing to such interest, without interest unless otherwise required by applicable statute, until the claim or dispute is settled.

TERMINATION: Termination of this agreement is effective on the first day of the month that begins the 30th day after the date written notice of termination is received by either party.

NOTICES: The owner agrees to notify payor in writing of any change in the division of interest, including changes of interest contingent on payment of money or expiration of time.
No change of interest is binding on payor until the recorded copy of the instrument of change or documents satisfactorily evidencing such change are furnished to payor at the time the change occurs.
Any change of interest shall be made effective on the first day of the month following receipt of such notice by payor.
Any correspondence regarding this agreement shall be furnished to the addresses listed unless otherwise advised by either party.
In addition to the legal rights provided by the terms and provisions of this Division Order, an owner and payor may have certain statutory rights under the laws of this State.

10-53-19

EXHIBIT A

Date: 10/17/2018

BHP
Land Administration
P.O. Box 22719
Houston, TX 77227-9927
T (877) 311-1443
F (888) 484-3189
PetroleumOwnerRelations
Request@bhpbilliton.com

CREDIT TO
Owner # 80113945
STATE OF TEXAS GLO
1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Special Clauses/Comments:

Issue Date:	10/17/2018
Property Name:	HSS STATE 113-23X14 2H
Property #:	P1M819/00501
Production:	ALL PRODUCTS
Operator:	BHP BILLITON PETROLEUM (TXLA OPERATING)
Legal Description:	PSL ABST/ID# 1271 Grantee W.H. HICKS Blk 113 Sec 14 CULBERSON COUNTY/PARISH, TEXAS (1.000 ACRES); PSL ABST/ID# 6462 Grantee C.M. CALDWELL Blk 113 Sec 23 CULBERSON COUNTY/PARISH, TEXAS (1.000 ACRES)

Decimal	Type	Status	Reason	Start Date
0.01575508	RI	PAY		9/1/2018
0.04648476	RI	PAY		9/1/2018
0.01549492	RI	PAY		9/1/2018
0.04726524	RI	PAY		9/1/2018

PLEASE KEEP THIS COPY FOR YOUR RECORDS
HANNS - 50955(P1M819_NotAmended)

01-22-01

DIVISION ORDER

Date: 10/17/2018

Special Clauses/Comments:

Owner Number:	80113945
Owner Name:	STATE OF TEXAS GLO
Owners Signatures:	
Owner Tax I.D. Number:	[redacted]
Day Time Phone Number:	800-998-4456
E-Mail Address:	
Owners Mailing Address:	1700 N CONGRESS AVE NO 640 AUSTIN TX 78701-1495
Witness:	

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number. Failure to comply will result in 24% tax withholding and will not be refundable by Payor.

DIVO 50955 80113945

PLEASE SIGN AND RETURN THIS COPY

HANNS - 50955(P1M819_NotAmended)

01-63-01

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT

The undersigned, hereinafter called "Owner", is representing that he / she is the owner of an oil, gas and / or mineral interest that is currently paid by BHP Billiton Petroleum (Fayetteville) LLC (BHPB) / Petrohawk Energy Corporation (PEC). Owner is now authorizing BHPB / PEC to make direct deposit (EFT) payments for his / her owned interest to the financial institution and owner account as designated below.

Owner agrees that electing to participate in EFT payments will not amend any lease agreements between BHPB / PEC and Owner. This agreement simply allows for EFT payments in lieu of paper royalty check payments.

Owner acknowledges they will no longer receive physical Check Stub Details via the United States Postal Service (USPS). Check Stub Details are available online to all owners via the PDS Energy website (https://secure.pds-austin.com/bhp/login.asp). Please visit this site and click on "Register Now" to create your User Name and Password for login purposes.

Owner agrees to give at least sixty (60) days advance written notice of any change in the payment instructions shown below. Owner agrees that any changes to their mailing address will continue to be submitted in writing.

Owner agrees that BHPB and/or PEC will not be held liable for any interest or other claim arising as the result of Owner's failure to provide written notice of any payment instruction changes. Owner also releases and agrees to indemnify and hold BHPB / PEC harmless for any loss, claim, damage, or interest incurred as the result of Owner's depository institution's failure to properly or promptly post any EFT payment and / or as a result of any error or omission in the payment instructions provided by or on behalf of Owner.

Name of Owner:	STATE OF TEXAS GLO
Owner Number on BHPB / PEC Issued Check:	80113945
Street Address or P.O. Box:	
City, State, & Zip Code:	
Daytime Phone Number (Including Area Code):	
Email Address:	

Depository Institution:	
Depository Institution Routing Number (9 Digits):	
Name on Account:	
Account Number:	
Account Type (circle one):	o CHECKING o SAVINGS

Signature of Owner(s) or Authorized Representatives:	
TIN or SSN (Last 4 Digits):	[redacted]
Date:	

Please initial below if you would like the address on your account to be updated to the address reflected above. Please note this is where all future correspondence sent by BHPB & PEC will be sent unless otherwise noted.
Owner Initials: _____

Owner understands and agrees that BHPB and/or PEC will have up to sixty (60) days after receipt of the authorization form to process the EFT request and payments will be deferred until accruals reach $100 or annually, whichever comes first. **Owner Initials**: _____

Owner acknowledges they will no longer receive physical Check Stub Details via the USPS. Check Stub Details are available online to all owners via the PDS Energy website. **Owner Initials:** _____

PLEASE ENCLOSE A BLANK VOIDED CHECK FOR THE ACCOUNT TO WHICH PAYMENTS WILL BE DEPOSITED.

EFT 50955 80113945

21-22-01

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

January 17, 2019

Broderick Brown
Division Order Analyst
BHP Billiton Petroleum
P.O. BOX 22719
Houston, TX 77227-9927

Re: State Lease Nos. MF113061, MF113603, MF115984 and MF116836 HSS State 113-23X14 2H Unit 7505

Dear Mr. Brown:

The Texas General Land Office (GLO) has received your Division Order for the referenced unit. This Division Order has been filed in the appropriate mineral file(s).

The payment of royalties attributable to state-owned mineral and royalty interests is set by contract and applicable statutes and rules. The execution of division orders may, in some cases, affect the manner in which such payments are made or calculated. Therefore, Title 31, §9.32, of the Texas Administrative Code specifies that GLO staff cannot execute a division order or bind the state to any terms contained within it.

Subject to applicable state law and the state's right to take its production in-kind, the GLO acquiesces to the sale of oil and gas in accordance with the terms and conditions set out in the oil and gas leases. If you have questions concerning this matter, please feel free to e-mail me at the address below my signature.

We look forward to being put on pay status as soon as you are able to set up the wells in our RRAC system.

Thank you,

Vivian Zamora

Vivian Zamora
Landman, Energy Resources
512-475-0428
512-475-1404 (fax)
vivian.zamora@glo.texas.gov

File No. MF113061

Culberson County

Division Order

Date Filed: 1-18-2019

George P. Bush, Commissioner

By VB

MF 113061 NUML 8028
MF 113596

BHP

BHP
Land Administration
P.O. Box 22719
Houston, TX 77227-9927
T (877) 311-1443
F (888) 484-3189
PetroleumOwnerRelations
Request@bhpbilliton.com

STATE OF TEXAS GLO
1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Division Order Instruction Sheet

We are pleased to deliver this Division Order which sets forth your share of production proceeds from the well indicated thereon and the name and address to which payments will be made. Please return one fully executed copy and retain the other copy for your records. Your Division Order contains information that will aid in your communication with BHP. When contacting us about any questions regarding your interest or Division Order, please have the Division Order in hand as it contains identifying information that will assist us in answering your questions.

WE ARE NOT ABLE TO ACCEPT ANY ALTERATIONS TO THIS DIVISION ORDER FORM.

SIGNATURES:

- Sign exactly as shown on the Division Order. If your signature is different, please enclose legal documentation authorizing the name change with your returned Division Order.
- Signatures by Agents, Attorneys-in-Fact, Guardians, or Trustees must be verified by attaching a copy of the recorded legal evidence of the rights vested in the signing party.
- In the event of multiple trustees/executors, all signatures are required unless documentation is provided evidencing authority to sign on behalf of all parties.
- An authorized official, with the name and title of the signing party printed beneath the signature, must execute for companies, corporations, or partnerships.
- All signatures must be witnessed. Notary is not required.

TAXPAYER IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER:

Include your Tax ID or Social Security Number in the space provided on your Division Order. Failure to furnish this number will result in 24% tax withholding in accordance with Section 3406 of the Internal Revenue Service Code, and any tax withheld will not be refundable by BHP.

ADDRESS & TITLE CHANGES:

- Please note any change of address directly on your Division Order
- Subsequent address changes must be submitted in writing either by mail, fax or email (a change of address form can be found at http://www.bhpbilliton.com/investor-centre/owner-relations).
- If a change in title occurs, please furnish us with a copy of the recorded deed or document transferring the title.

PAYMENTS: Royalty check payments are mailed on or before the 30th of each month. Our policy is to remit checks monthly when your account reaches $100, or once a year, whichever occurs first. We can reduce the minimum hold on your account from $100 to $25 upon written request.

PRIVACY: BHP respects the privacy of our owners. Please remember we are unable to release information to third parties on any ownership account without prior written authorization from the owner unless legally required. In order for us to discuss your lease, agreement, and/or royalty information with your appointed representative, we must be furnished with your written authorization.

CONTACT US: The following information will assist us in serving you: (1) name & owner number (2) county and state where well is located (3) well name and property number (4) telephone number with area code (5) nature of your inquiry

Owner Relations Call Center
Phone Number: 1-877-311-1443
Fax: 1-888-484-3189
E-mail: petroleumownerrelationsrequest@bhpbilliton.com

BHP
Land Administration
P O Box 22719
Houston, TX 77227-9927

01.22.01

SEE EXHIBIT A FOR LIST OF PROPERTY(IES) AND DECIMAL INTEREST(S) COVERED

The undersigned severally and not jointly certifies that it is the legal owner of the interest set out herein of all products produced from the property described herein:

THIS AGREEMENT DOES NOT AMEND ANY LEASE OR OPERATING AGREEMENT BETWEEN THE INTEREST OWNERS AND THE LESSEE OR OPERATOR OR ANY OTHER CONTRACTS FOR THE PURCHASE OF OIL OR GAS.

The following provisions apply to each interest owner ("owner") who executes this agreement and may not be altered as to its terms:

TERMS OF SALE: The undersigned will be paid in accordance with the division of interest set out herein. The payor shall pay all parties at the price agreed to by the operator for products to be sold pursuant to this Division Order. Purchaser shall compute quantity and make corrections for gravity and temperature and make deductions for impurities.

PAYMENT: From the effective date, payment is to be made monthly by payor's check or electronic funds transfer, based on this division of interest, for products run during the preceding calendar month from the property listed herein, less taxes required by law to be deducted and remitted by payor as purchaser. Payments of less than $100 may be accrued before disbursement until the total amount equals $100 or more, or until 12 months of proceeds accumulate, whichever occurs first. However, the payor may hold accumulated proceeds of less than $10 until production ceases or the payor's responsibility for making payment for production ceases, whichever occurs first. Payee agrees to refund to payor any amounts attributable to an interest or part of an interest that payee does not own.

INDEMNITY: The owner agrees to indemnify and hold payor harmless from all liability resulting from payments made to the owner in accordance with such division of interest, including but not limited to attorney fees or judgments in connection with any suit that affects the owner's interest to which payor is made a party.

DISPUTE; WITHHOLDING OF FUNDS: If a suit is filed that affects the interest of the owner, written notice shall be given to payor by the owner together with a copy of the complaint or petition filed.
In the event of a claim or dispute that affects title to the division of interest credited herein, payor is authorized to withhold payments accruing to such interest, without interest unless otherwise required by applicable statute, until the claim or dispute is settled.

TERMINATION: Termination of this agreement is effective on the first day of the month that begins the 30th day after the date written notice of termination is received by either party.

NOTICES: The owner agrees to notify payor in writing of any change in the division of interest, including changes of interest contingent on payment of money or expiration of time.
No change of interest is binding on payor until the recorded copy of the instrument of change or documents satisfactorily evidencing such change are furnished to payor at the time the change occurs.
Any change of interest shall be made effective on the first day of the month following receipt of such notice by payor.
Any correspondence regarding this agreement shall be furnished to the addresses listed unless otherwise advised by either party.
In addition to the legal rights provided by the terms and provisions of this Division Order, an owner and payor may have certain statutory rights under the laws of this State.

10.53.19

EXHIBIT A

Date: 10/17/2018

BHP
Land Administration
P.O. Box 22719
Houston, TX 77227-9927
T (877) 311-1443
F (888) 484-3189
PetroleumOwnerRelations
Request@bhpbilliton.com

CREDIT TO
Owner # 80113945
STATE OF TEXAS GLO
1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Special Clauses/Comments:

Issue Date:	10/17/2018
Property Name:	HS STATE 113-16 W108H
Property #:	P1N008/00501 109-33250
Production:	ALL PRODUCTS
Operator:	BHP BILLITON PETROLEUM (TXLA OPERATING)
Legal Description:	PSL ABST/ID# 5115 Grantee J.M. COOKSEY Blk 113 Sec 16 CULBERSON COUNTY/PARISH, TEXAS (1.000 ACRES)

Decimal	Type	Status	Reason	Start Date
0.03125000	RI	PAY		9/1/2018
0.09375000	RI	PAY		9/1/2018

PLEASE KEEP THIS COPY FOR YOUR RECORDS
HANNS - 50957(P1N008_NotAmended)

91-62-01

DIVISION ORDER

Date: 10/17/2018

Special Clauses/Comments:

Owner Number: 80113945

Owner Name: STATE OF TEXAS GLO

Owners Signatures: _____

Owner Tax I.D. Number: [redacted]

Day Time Phone Number: 800-998-4456

E-Mail Address: _____

Owners Mailing Address: 1700 N CONGRESS AVE NO 640
AUSTIN TX 78701-1495

Witness: _____

Federal Law requires you to furnish your Social Security or Taxpayer Identification Number. Failure to comply will result in 24% tax withholding and will not be refundable by Payor.

DIVO 50957 80113945

PLEASE SIGN AND RETURN THIS COPY

HANNS - 50957(P1N008_NotAmended)

10-23-01

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER PAYMENT

The undersigned, hereinafter called "Owner", is representing that he / she is the owner of an oil, gas and / or mineral interest that is currently paid by BHP Billiton Petroleum (Fayetteville) LLC (BHPB) / Petrohawk Energy Corporation (PEC). Owner is now authorizing BHPB / PEC to make direct deposit (EFT) payments for his / her owned interest to the financial institution and owner account as designated below.

Owner agrees that electing to participate in EFT payments will not amend any lease agreements between BHPB / PEC and Owner. This agreement simply allows for EFT payments in lieu of paper royalty check payments.

Owner acknowledges they will no longer receive physical Check Stub Details via the United States Postal Service (USPS). Check Stub Details are available online to all owners via the PDS Energy website (https://secure.pds-austin.com/bhp/login.asp). Please visit this site and click on "Register Now" to create your User Name and Password for login purposes.

Owner agrees to give at least sixty (60) days advance written notice of any change in the payment instructions shown below. Owner agrees that any changes to their mailing address will continue to be submitted in writing.

Owner agrees that BHPB and/or PEC will not be held liable for any interest or other claim arising as the result of Owner's failure to provide written notice of any payment instruction changes. Owner also releases and agrees to indemnify and hold BHPB / PEC harmless for any loss, claim, damage, or interest incurred as the result of Owner's depository institution's failure to properly or promptly post any EFT payment and / or as a result of any error or omission in the payment instructions provided by or on behalf of Owner.

Name of Owner:	STATE OF TEXAS GLO
Owner Number on BHPB / PEC Issued Check:	80113945
Street Address or P.O. Box:	
City, State, & Zip Code:	
Daytime Phone Number (Including Area Code):	
Email Address:	

Depository Institution:	
Depository Institution Routing Number (9 Digits):	
Name on Account:	
Account Number:	
Account Type (circle one):	o CHECKING o SAVINGS

Signature of Owner(s) or Authorized Representatives:	
TIN or SSN (Last 4 Digits):	[redacted]
Date:	

Please initial below if you would like the address on your account to be updated to the address reflected above. Please note this is where all future correspondence sent by BHPB & PEC will be sent unless otherwise noted.
Owner Initials: _____

Owner understands and agrees that BHPB and/or PEC will have up to sixty (60) days after receipt of the authorization form to process the EFT request and payments will be deferred until accruals reach $100 or annually, whichever comes first. **Owner Initials**: _____

Owner acknowledges they will no longer receive physical Check Stub Details via the USPS. Check Stub Details are available online to all owners via the PDS Energy website. **Owner Initials:** _____

PLEASE ENCLOSE A BLANK VOIDED CHECK FOR THE ACCOUNT TO WHICH PAYMENTS WILL BE DEPOSITED.

EFT 50957 80113945

10-23-01

TEXAS GENERAL LAND OFFICE
GEORGE P. BUSH, COMMISSIONER

January 25, 2019

Broderick Brown
Division Order Analyst
BHP Billiton Petroleum
P.O. BOX 22719
Houston, TX 77227-9927

Re: State Lease Nos. MF113061 and MF113596 HS State 113-16 W108H NUML 8028

Dear Mr. Brown:

The Texas General Land Office (GLO) has received your Division Order for the referenced unit. This Division Order has been filed in the appropriate mineral file(s).

The payment of royalties attributable to state-owned mineral and royalty interests is set by contract and applicable statutes and rules. The execution of division orders may, in some cases, affect the manner in which such payments are made or calculated. Therefore, Title 31, §9.32, of the Texas Administrative Code specifies that GLO staff cannot execute a division order or bind the state to any terms contained within it.

Subject to applicable state law and the state's right to take its production in-kind, the GLO acquiesces to the sale of oil and gas in accordance with the terms and conditions set out in the oil and gas leases. If you have questions concerning this matter, please feel free to e-mail me at the address below my signature.

We look forward to being put on pay status as soon as you are able to set up the wells in our RRAC system.

Thank you,

Vivian Zamora

Vivian Zamora
Landman, Energy Resources
512-475-0428
512-475-1404 (fax)
vivian.zamora@glo.texas.gov

File No. MF113061

Culberson County

Division Order

Date Filed: 1-28-2019

George P. Bush, Commissioner

By VB

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00819	MF113061	$10,314.82	$0.00	$1,054.50	$709.10	$12,078.42
Total Due		$10,314.82	$0.00	$1,054.50	$709.10	**$12,078.42**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For questions regarding this invoice, email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00819	MF113061	$10,314.82	$0.00	$1,054.50	$709.10	$12,078.42
Total Due		$10,314.82	$0.00	$1,054.50	$709.10	**$12,078.42**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: 201909-202008

Category Gas
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1) Month / Year	(2) RRC Number	(3) Gas/Oil Volume	(4) Tract Participa	(5) Price	(6) BTU	(7) Gross Value	(8) Royalty Due	(9) Royalty Paid	(10) Additional Roy	(11) Number of Da	(12) Interest Rate For A	(13) Penalty Rate From	(14) Interest Rate From	(15) Revenue Due
Sep-19	08-272717	4,392	1.00000000	2.677152	0.982926	$11,557.29	$1,444.66	$0.00	$1,444.66	593	6.50%	$144.47	$137.38	$1,726.51
Oct-19	08-272717	4,287	1.00000000	2.621941	1.005090	$11,297.47	$1,412.18	$0.00	$1,412.18	563	6.50%	$141.22	$126.75	$1,680.15
Nov-19	08-272717	682	1.00000000	2.760067	0.997814	$1,878.25	$234.78	$0.00	$234.78	532	5.75%	$25.00	$17.49	$277.27
Dec-19	08-272717	1,130	1.00000000	3.423735	1.004885	$3,887.72	$485.96	$0.00	$485.96	501	5.75%	$48.60	$33.84	$568.40
Jan-20	08-272717	1,571	1.00000000	3.105403	1.017268	$4,962.83	$620.35	$0.00	$620.35	472	5.75%	$62.04	$40.36	$722.75
Feb-20	08-272717	12,841	1.00000000	2.259476	1.016907	$29,504.47	$3,688.06	$0.00	$3,688.06	441	5.75%	$368.81	$221.94	$4,278.81
Mar-20	08-272717	8,538	1.00000000	1.714302	1.019144	$14,916.92	$1,864.61	$0.00	$1,864.61	411	5.75%	$186.46	$103.40	$2,154.47
Apr-20	08-272717	3,881	1.00000000	0.349040	1.013237	$1,372.56	$171.57	$0.00	$171.57	380	5.75%	$25.00	$8.68	$205.25
May-20	08-272717	1,467	1.00000000	1.513414	1.005238	$2,231.81	$278.98	$0.00	$278.98	350	5.75%	$27.90	$12.79	$319.67
Jun-20	08-272717	821	1.00000000	1.529649	1.006767	$1,264.34	$158.04	$0.00	$158.04	319	5.75%	$25.00	$6.47	$189.51
Aug-20	08-272717	(253)	1.00000000	1.385978	1.012175	($354.92)	($44.37)	$0.00	($44.37)	258	5.75%	$0.00	$0.00	($44.37)
TOTALS		39,357				$82,518.74	$10,314.82	$0.00	$10,314.82			$1,054.50	$709.10	$12,078.42

ATTN: Patty Burg
E-MAIL: Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-272717 08-288203 08-288204 08-288213 UNIT 7222

COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (6) BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1 : PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, SEND AN EMAIL TO account.services@glo.texas.gov NOTING YOUR COMPANY NAME, CUSTOMER ID, INVOICE NUMBER, REMITTANCE DATE AND AMOUNT OF PAYMENT.

File No. MF113061 46

County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00819	MF113061	$10,314.82	$0.00	$1,054.50	$709.10	$12,078.42
Total Due		$10,314.82	$0.00	$1,054.50	$709.10	**$12,078.42**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For questions regarding this invoice, email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00819	MF113061	$10,314.82	$0.00	$1,054.50	$709.10	$12,078.42
Total Due		$10,314.82	$0.00	$1,054.50	$709.10	**$12,078.42**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: 201909-202008

Category Gas
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Roy	Number of Da	Interest Rate For A	Penalty Rate From	Interest Rate From	Revenue Due
Sep-19	08-272717	4,392	1.00000000	2.677152	0.982926	$11,557.29	$1,444.66	$0.00	$1,444.66	593	6.50%	$144.47	$137.38	$1,726.51
Oct-19	08-272717	4,287	1.00000000	2.621941	1.005090	$11,297.47	$1,412.18	$0.00	$1,412.18	563	6.50%	$141.22	$126.75	$1,680.15
Nov-19	08-272717	682	1.00000000	2.760067	0.997814	$1,878.25	$234.78	$0.00	$234.78	532	5.75%	$25.00	$17.49	$277.27
Dec-19	08-272717	1,130	1.00000000	3.423735	1.004885	$3,887.72	$485.96	$0.00	$485.96	501	5.75%	$48.60	$33.84	$568.40
Jan-20	08-272717	1,571	1.00000000	3.105403	1.017268	$4,962.83	$620.35	$0.00	$620.35	472	5.75%	$62.04	$40.36	$722.75
Feb-20	08-272717	12,841	1.00000000	2.259476	1.016907	$29,504.47	$3,688.06	$0.00	$3,688.06	441	5.75%	$368.81	$221.94	$4,278.81
Mar-20	08-272717	8,538	1.00000000	1.714302	1.019144	$14,916.92	$1,864.61	$0.00	$1,864.61	411	5.75%	$186.46	$103.40	$2,154.47
Apr-20	08-272717	3,881	1.00000000	0.349040	1.013237	$1,372.56	$171.57	$0.00	$171.57	380	5.75%	$25.00	$8.68	$205.25
May-20	08-272717	1,467	1.00000000	1.513414	1.005238	$2,231.81	$278.98	$0.00	$278.98	350	5.75%	$27.90	$12.79	$319.67
Jun-20	08-272717	821	1.00000000	1.529649	1.006767	$1,264.34	$158.04	$0.00	$158.04	319	5.75%	$25.00	$6.47	$189.51
Aug-20	08-272717	(253)	1.00000000	1.385978	1.012175	($354.92)	($44.37)	$0.00	($44.37)	258	5.75%	$0.00	$0.00	($44.37)
TOTALS		39,357				$82,518.74	$10,314.82	$0.00	$10,314.82			$1,054.50	$709.10	$12,078.42

ATTN: Patty Burg
E-MAIL: Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-272717 08-288203 08-288204 08-288213 UNIT 7222

COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (6) BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1 : PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, SEND AN EMAIL TO account.services@glo.texas.gov NOTING YOUR COMPANY NAME, CUSTOMER ID, INVOICE NUMBER, REMITTANCE DATE AND AMOUNT OF PAYMENT.

47

File No. MF113061

_____ County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By _____ VD

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00820	MF113061	$2,303.68	$0.00	$278.69	$176.46	$2,758.83
Total Due		$2,303.68	$0.00	$278.69	$176.46	**$2,758.83**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For questions regarding this invoice, email us at glo123@glo.texas.gov.

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Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00820	MF113061	$2,303.68	$0.00	$278.69	$176.46	$2,758.83
Total Due		$2,303.68	$0.00	$278.69	$176.46	**$2,758.83**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: 201909-202008

Category Gas
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1) Month / Year	(2) RRC Number	(3) Gas/Oil Volume	(4) Tract Participa	(5) Price	(6) BTU	(7) Gross Value	(8) Royalty Due	(9) Royalty Paid	(10) Additional Roy	(11) Number of Da	(12) Interest Rate For A	(13) Penalty Rate From	(14) Interest Rate From	(15) Revenue Due
Sep-19	08-288213	1,525	1.00000000	2.677608	0.982926	$4,013.63	$501.70	$0.00	$501.70	593	6.50%	$50.17	$47.71	$599.58
Oct-19	08-288213	1,483	1.00000000	2.622094	1.005090	$3,908.36	$488.54	$0.00	$488.54	563	6.50%	$48.85	$43.85	$581.24
Nov-19	08-288213	1,154	1.00000000	2.760087	0.997814	$3,178.18	$397.27	$0.00	$397.27	532	5.75%	$39.73	$29.60	$466.60
Dec-19	08-288213	507	1.00000000	3.424291	1.004885	$1,744.60	$218.07	$0.00	$218.07	501	5.75%	$25.00	$15.18	$258.25
Jan-20	08-288213	58	1.00000000	3.107603	1.017268	$183.35	$22.92	$0.00	$22.92	472	5.75%	$25.00	$1.49	$49.41
Feb-20	08-288213	969	1.00000000	2.257622	1.016907	$2,224.62	$278.08	$0.00	$278.08	441	5.75%	$27.81	$16.73	$322.62
Mar-20	08-288213	1,700	1.00000000	1.714448	1.019144	$2,970.36	$371.29	$0.00	$371.29	411	5.75%	$37.13	$20.59	$429.01
Apr-20	08-288213	584	1.00000000	0.348970	1.013237	$206.50	$25.81	$0.00	$25.81	380	5.75%	$25.00	$1.31	$52.12
TOTALS		7,980				$18,429.59	$2,303.68	$0.00	$2,303.68			$278.69	$176.46	$2,758.83

ATTN: Patty Burg
E-MAIL: Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-288919 08-278957 UNIT 7505

COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (6) BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
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48

File No. MF113061

County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00820	MF113061	$2,303.68	$0.00	$278.69	$176.46	$2,758.83
Total Due		$2,303.68	$0.00	$278.69	$176.46	**$2,758.83**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

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Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00820	MF113061	$2,303.68	$0.00	$278.69	$176.46	$2,758.83
Total Due		$2,303.68	$0.00	$278.69	$176.46	**$2,758.83**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: 201909-202008

Category Gas
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1) Month / Year	(2) RRC Number	(3) Gas/Oil Volume	(4) Tract Participa	(5) Price	(6) BTU	(7) Gross Value	(8) Royalty Due	(9) Royalty Paid	(10) Additional Roy	(11) Number of Da	(12) Interest Rate For A	(13) Penalty Rate From	(14) Interest Rate From	(15) Revenue Due
Sep-19	08-288213	1,525	1.00000000	2.677608	0.982926	$4,013.63	$501.70	$0.00	$501.70	593	6.50%	$50.17	$47.71	$599.58
Oct-19	08-288213	1,483	1.00000000	2.622094	1.005090	$3,908.36	$488.54	$0.00	$488.54	563	6.50%	$48.85	$43.85	$581.24
Nov-19	08-288213	1,154	1.00000000	2.760087	0.997814	$3,178.18	$397.27	$0.00	$397.27	532	5.75%	$39.73	$29.60	$466.60
Dec-19	08-288213	507	1.00000000	3.424291	1.004885	$1,744.60	$218.07	$0.00	$218.07	501	5.75%	$25.00	$15.18	$258.25
Jan-20	08-288213	58	1.00000000	3.107603	1.017268	$183.35	$22.92	$0.00	$22.92	472	5.75%	$25.00	$1.49	$49.41
Feb-20	08-288213	969	1.00000000	2.257622	1.016907	$2,224.62	$278.08	$0.00	$278.08	441	5.75%	$27.81	$16.73	$322.62
Mar-20	08-288213	1,700	1.00000000	1.714448	1.019144	$2,970.36	$371.29	$0.00	$371.29	411	5.75%	$37.13	$20.59	$429.01
Apr-20	08-288213	584	1.00000000	0.348970	1.013237	$206.50	$25.81	$0.00	$25.81	380	5.75%	$25.00	$1.31	$52.12
TOTALS		7,980				$18,429.59	$2,303.68	$0.00	$2,303.68			$278.69	$176.46	$2,758.83

ATTN: Patty Burg
E-MAIL: Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
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COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-288919 08-278957 UNIT 7505

COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (6) BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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File No. MF 113061

County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

49

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00822	MF113061	$0.00	$3,295.19	$450.03	$181.26	$3,926.48
Total Due		$0.00	$3,295.19	$450.03	$181.26	**$3,926.48**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

NOTICE

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Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00822	MF113061	$0.00	$3,295.19	$450.03	$181.26	$3,926.48
Total Due		$0.00	$3,295.19	$450.03	$181.26	**$3,926.48**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: SEPT 2019 Through AUG 2020

Category Oil
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Roy	Number of Da	Interest Rate For A	Penalty Rate From	Interest Rate From	Revenue Due
Sep-19	08-271770	95	1.00000000	52.916970	1.000000	$5,027.11	$628.39	$0.00	$628.39	603	6.50%	$62.84	$60.88	$752.11
Oct-19	08-271770	30	1.00000000	48.177050	1.000000	$1,445.31	$180.66	$0.00	$180.66	573	6.50%	$25.00	$16.54	$222.20
Nov-19	08-271770	11	1.00000000	53.707020	1.000000	$590.78	$73.85	$0.00	$73.85	542	5.75%	$25.00	$5.62	$104.47
Dec-19	08-271770	4	1.00000000	56.881650	1.000000	$227.53	$28.44	$0.00	$28.44	511	5.75%	$25.00	$2.03	$55.47
Jan-20	08-271770	9	1.00000000	54.485950	1.000000	$490.37	$61.30	$0.00	$61.30	482	5.75%	$25.00	$4.08	$90.38
Feb-20	08-271770	4	1.00000000	47.334210	1.000000	$189.34	$23.67	$0.00	$23.67	451	5.75%	$25.00	$1.46	$50.13
Mar-20	08-271770	7	1.00000000	26.975500	1.000000	$188.83	$23.60	$0.00	$23.60	421	5.75%	$25.00	$1.35	$49.95
Apr-20	08-271770	0	1.00000000	10.898820	1.000000	$0.00	$0.00	$0.00	$0.00	390	5.75%	$0.00	$0.00	$0.00
May-20	08-271770	(38)	1.00000000	14.213350	1.000000	($540.11)	($67.51)	$0.00	($67.51)	360	5.75%	$0.00	$0.00	($67.51)
Jul-20	08-271770	519	1.00000000	36.560870	1.000000	$18,975.09	$2,371.89	$0.00	$2,371.89	298	5.75%	$237.19	$89.30	$2,698.38
Aug-20	08-271770	(6)	1.00000000	38.795780	1.000000	($232.77)	($29.10)	$0.00	($29.10)	268	5.75%	$0.00	$0.00	($29.10)
TOTALS		635				$26,361.48	$3,295.19	$0.00	$3,295.19			$450.03	$181.26	$3,926.48

ATTENTION: Patty Burg
E-MAIL : Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-271770 08-285075 08-289978 08-289953
COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE
COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

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~~$0~~ 50

File No. MF113061

_____ County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00822	MF113061	$0.00	$3,295.19	$450.03	$181.26	$3,926.48
Total Due		$0.00	$3,295.19	$450.03	$181.26	**$3,926.48**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

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Detach and return with payment

Reconciliation Billing
BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00822	MF113061	$0.00	$3,295.19	$450.03	$181.26	$3,926.48
Total Due		$0.00	$3,295.19	$450.03	$181.26	**$3,926.48**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: SEPT 2019 Through AUG 2020

Category Oil
Auditor/AE: Acharito
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Month / Year	RRC Number	Gas/Oil Volume	Tract Participa	Price	BTU	Gross Value	Royalty Due	Royalty Paid	Additional Roy	Number of Da	Interest Rate For A	Penalty Rate From	Interest Rate From	Revenue Due
Sep-19	08-271770	95	1.00000000	52.916970	1.000000	$5,027.11	$628.39	$0.00	$628.39	603	6.50%	$62.84	$60.88	$752.11
Oct-19	08-271770	30	1.00000000	48.177050	1.000000	$1,445.31	$180.66	$0.00	$180.66	573	6.50%	$25.00	$16.54	$222.20
Nov-19	08-271770	11	1.00000000	53.707020	1.000000	$590.78	$73.85	$0.00	$73.85	542	5.75%	$25.00	$5.62	$104.47
Dec-19	08-271770	4	1.00000000	56.881650	1.000000	$227.53	$28.44	$0.00	$28.44	511	5.75%	$25.00	$2.03	$55.47
Jan-20	08-271770	9	1.00000000	54.485950	1.000000	$490.37	$61.30	$0.00	$61.30	482	5.75%	$25.00	$4.08	$90.38
Feb-20	08-271770	4	1.00000000	47.334210	1.000000	$189.34	$23.67	$0.00	$23.67	451	5.75%	$25.00	$1.46	$50.13
Mar-20	08-271770	7	1.00000000	26.975500	1.000000	$188.83	$23.60	$0.00	$23.60	421	5.75%	$25.00	$1.35	$49.95
Apr-20	08-271770	0	1.00000000	10.898820	1.000000	$0.00	$0.00	$0.00	$0.00	390	5.75%	$0.00	$0.00	$0.00
May-20	08-271770	(38)	1.00000000	14.213350	1.000000	($540.11)	($67.51)	$0.00	($67.51)	360	5.75%	$0.00	$0.00	($67.51)
Jul-20	08-271770	519	1.00000000	36.560870	1.000000	$18,975.09	$2,371.89	$0.00	$2,371.89	298	5.75%	$237.19	$89.30	$2,698.38
Aug-20	08-271770	(6)	1.00000000	38.795780	1.000000	($232.77)	($29.10)	$0.00	($29.10)	268	5.75%	$0.00	$0.00	($29.10)
TOTALS		635				$26,361.48	$3,295.19	$0.00	$3,295.19			$450.03	$181.26	$3,926.48

ATTENTION: Patty Burg
E-MAIL : Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-271770 08-285075 08-289978 08-289953
COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE
COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1 : PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, SEND AN EMAIL TO account.services@glo.texas.gov NOTING YOUR COMPANY NAME, CUSTOMER ID, INVOICE NUMBER, REMITTANCE DATE AND AMOUNT OF PAYMENT.

51

File No. MF113061

County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

Texas General Land Office
Reconciliation Billing

George P. Bush, Commissioner

PO Box 12873
Austin, TX 78711-2873
(800) 998-4456
8:00 - 5:00 M-F

BPX Operating Company
Attn: Patty Burg
Office: WM11 6025-1
15377 Memorial Drive
Houston, TX 77079-4101

Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00821	MF113061	$8,848.62	$0.00	$931.84	$598.10	$10,378.56
Total Due		$8,848.62	$0.00	$931.84	$598.10	**$10,378.56**

Penalty and interest have been calculated thru 6/30/2021. Payment remitted after 6/30/2021 will result in additional penalty and interest charges.

Charlton,Andrea M (512) 463-5190 or Andrea.Charlton@GLO.TEXAS.GOV

NOTICE

- Please update GLO1 and GLO2 production reports to correct volumes.
- Please do not update GLO3 report to include billed royalty, penalty or interest. This receivable has already been recorded.
- For questions regarding this invoice, email us at glo123@glo.texas.gov.

This notice does not constitute an Audit Billing Notice as defined in Section 52.135 of the Texas Natural Resources Code and, consequently, does not preclude the TGLO from conducting further examinations of these leases, time periods or issues.

Detach and return with payment

Reconciliation Billing

BPX Operating Company
Billing Date: 6/10/2021
Billing Due Date: 7/10/2021
Customer Number: C000046383

Remit Payment To:
Texas General Land Office
PO Box 12873
Austin, TX 78711-2873

Invoice	Mineral File	Gas Royalty	Oil Royalty	Penalty	Interest	Total Due
21I00821	MF113061	$8,848.62	$0.00	$931.84	$598.10	$10,378.56
Total Due		$8,848.62	$0.00	$931.84	$598.10	**$10,378.56**
Amt. Paid						

Customer ID: C000046383
Invoice Number:
GLO Lease: MF113061
GLO Review: BPX OPERATING COMPANY
Review Period: 201909-202008

Category Gas
Auditor/AE: Acharlto
Billing Date: 6/1/2021
P&I Calculation Date: 6/30/2021
Royalty Rate: 12.50%

(1) Month / Year	(2) RRC Number	(3) Gas/Oil Volume	(4) Tract Participa	(5) Price	(6) BTU	(7) Gross Value	(8) Royalty Due	(9) Royalty Paid	(10) Additional Roy	(11) Number of Da	(12) Interest Rate For A	(13) Penalty Rate From	(14) Interest Rate From	(15) Revenue Due
Sep-19	08-271770	1,746	1.00000000	2.677044	0.982926	$4,594.31	$574.29	$0.00	$574.29	593	6.50%	$57.43	$54.61	$686.33
Oct-19	08-271770	991	1.00000000	2.622184	1.005090	$2,611.81	$326.48	$0.00	$326.48	563	6.50%	$32.65	$29.30	$388.43
Nov-19	08-271770	10,590	1.00000000	2.760087	0.997814	$29,165.43	$3,645.68	$0.00	$3,645.68	532	5.75%	$364.57	$271.65	$4,281.90
Dec-19	08-271770	(256)	1.00000000	3.423951	1.004885	($880.81)	($110.10)	$0.00	($110.10)	501	5.75%	$0.00	$0.00	($110.10)
Jan-20	08-271770	4,484	1.00000000	3.105763	1.017268	$14,166.72	$1,770.84	$0.00	$1,770.84	472	5.75%	$177.08	$115.21	$2,063.13
Feb-20	08-271770	3,888	1.00000000	2.259808	1.016907	$8,934.68	$1,116.84	$0.00	$1,116.84	441	5.75%	$111.68	$67.21	$1,295.73
Mar-20	08-271770	2,118	1.00000000	1.714113	1.019145	$3,700.00	$462.50	$0.00	$462.50	411	5.75%	$46.25	$25.65	$534.40
Apr-20	08-271770	790	1.00000000	0.348961	1.013233	$279.33	$34.92	$0.00	$34.92	380	5.75%	$25.00	$1.77	$61.69
Jul-20	08-271770	624	1.00000000	1.343711	1.005392	$843.00	$105.37	$0.00	$105.37	288	5.75%	$25.00	$3.80	$134.17
Aug-20	08-271770	5,256	1.00000000	1.386156	1.012181	$7,374.38	$921.80	$0.00	$921.80	258	5.75%	$92.18	$28.90	$1,042.88
TOTALS		30,231				$70,788.84	$8,848.62	$0.00	$8,848.62			$931.84	$598.10	$10,378.56

ATTN: Patty Burg
E-MAIL: Patty.Burg@bpx.com

COMMENTS: SALES VOLUMES REPORTED TO THE GLO WERE COMPARED TO VOLUMES REPORTED TO THE RRC.
IT HAS BEEN DETERMINED THAT THE SALES VOLUMES HAVE BEEN UNDER PAID.

COLUMN (3) RRC VOLUME - REPRESENTS UNDER REPORTED SALES VOLUMES TO THE GLO FROM RRC WELL ID# 08-271770 08-285075 08-289973 08-289953 UNIT8028

COLUMN (5) PRICE - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (6) BTU - TAKEN FROM PRODUCTION ROYALTY REPORTS SUBMITTED TO THE TEXAS GENERAL LAND OFFICE

COLUMN (13)(14)(15) PLEASE GO TO THIS WEB SITE FOR EXPLANATION OF PENALTY AND INTEREST ASSESSMENT:
http://www.glo.texas.gov/energy-business/oil-gas/rrac/forms/penalty-interest-assessment-rules.pdf

NOTE 1 : PLEASE REMIT PAYMENT OF THIS INVOICE SEPARATELY FROM REGULAR ROYALTY PAYMENTS. THE PREFERED METHOD OF PAYMENT IS BY CHECK ACCOMPANIED WITH THE BOTTOM HALF OF THE ATTACHED INVOICE. IF PAYMENT IS MADE THROUGH ACH DEBIT, SEND AN EMAIL TO account.services@glo.texas.gov NOTING YOUR COMPANY NAME, CUSTOMER ID, INVOICE NUMBER, REMITTANCE DATE AND AMOUNT OF PAYMENT.

File No. MF113061 52

County

Recon Billing

Date Filed: 8/16/2021

George P. Bush, Commissioner

By VD

DocuSign Envelope ID: DE2EA2C6-E588-4E96-8E2E-F920EB4A8A30

MEMORANDUM

TEXAS GENERAL LAND OFFICE • GEORGE P. BUSH • COMMISSIONER

DATE: **May 21, 2020**

TO: **Commissioner Bush**

FROM: **Dustin Brian Oslick**

SUBJECT: **BPX Horseshoe Springs Unit Year Seven (7) Plan of Development**

SUMMARY: Attached for your approval and signature are duplicate originals of the BPX Unit Year Seven (7) Plan of Development.

DETAILS: This agreement complies with existing GLO rules and policies and has been reviewed and approved by Energy Resources staff and the Legal Services Division. Chapter 52, Subchapter E of the Texas Natural Resources Code gives authority to the Commissioner to execute agreements that provide for operating areas as a unit for the exploration, development and production of oil or gas or both.

Document Name:
BPX Unit Year Seven (7) Plan of Development
Horseshoe Springs State Unit
Culberson County, Texas

Recipient:
BPX Energy

Recommendation: Please sign and return to Dustin Brian Oslick in Energy Resources (5-0593).

Attachments: Two (2) Plan of Development Letters

Thru:
Dustin Oslick
Larry Hargrave
Robert Hatter
Mark Havens

53.

File No. MF113061

Culberson County

Memo for Commissioner for Horsashoe Springs ODA

Date Filed: 12/16/2021

George P. Bush, Commissioner

By JM

DocuSign Envelope ID: DE2EA2C6-E588-4E96-8E2E-F920EB4A8A30

bpx energy

bp

Virginia (Ginny) Albert, CPL
Land Manager
Permian Development

BP America Production Company
BPX Energy Inc.
1700 Platte Street, Suite 150
Denver, CO 80202

Mobile 720.365.6693
ginny.albert@bpx.com

March 11, 2020

Texas General Land Office
Attn: Mr. Robert Hatter
1700 N. Congress Ave.
Austin, TX 78701
Robert.Hatter@GLO.TEXAS.GOV

Re: Unit Agreement for the Development and Operation of the Horseshoe Springs State Unit, Culberson County, Texas, as Corrected and Amended ("Horseshoe Springs Agreement")

Dear Mr. Hatter:

BP America Production Company ("BPAPC") acquired Petrohawk Energy Corporation, now BPX Production Company, from BHP Billiton Petroleum (North America) Inc. As a result of this acquisition, BPAPC, through its subsidiary BPX Energy, Inc., now includes, among other companies, BPX Properties (NA) LP, formerly BHP Billiton Petroleum Properties (N.A.), LP, and BPX Operating Company, formerly BHP Billiton Petroleum (TxLa Operating) Company, (together "BPX").[1]

On March 11, 2020, BPX met with the Texas General Land Office (the "GLO") pursuant to development obligations for a Plan of Development as required under Articles V.A. and V.B. of the Horseshoe Spring Agreement. At the meeting, BPX presented and hereby agrees to the following Plan of Development for the period of April 1, 2020, to March 31, 2021 ("Unit Year 7")[2]:

1) BPX will commence not less than six (6) wells within the Unit Area covered by the Horseshoe Springs Agreement that will each target the Wolfcamp formation in Unit Year 7; and

[1]BPX Energy Inc. includes the following companies: BPX Production Company, formerly Petrohawk Energy Corporation; BPX Midstream LLC, formerly BHP Billiton Petroleum (Tx Gathering), LLC; BPX Operating Company, formerly BHP Billiton Petroleum (TxLa Operating) Company; BPX Properties (GP) LLC, formerly BHP Billiton Petroleum Properties (GP), LLC; BPX Properties (LP) LLC, formerly BHP Billiton Petroleum Properties (LP), LLC ; BPX (Permian) Gathering LLC; BPX (Eagle Ford) Gathering LLC, formerly BHP Billiton Petroleum (Eagle Ford) Gathering LLC; BPX Properties (NA) LP, formerly BHP Billiton Petroleum Properties (N.A.), LP; BPX (KCS Resources) LLC, formerly BHP Billiton Petroleum (KCS Resources), LLC; BPX (WSF Operating) Inc., formerly BHP Billiton Petroleum (WSF Operating), Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

[2]The quantity of wells for Unit Year 7 obligations were confirmed in that certain meeting between the GLO and BPX on March 25, 2019 as documented in that certain letter dated March 28, 2019, by and between the GLO and BPX, confirmed and approved by the GLO and effective on April 1, 2019.

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2) Any wells in the Unit Area commenced during Unit Year 7 in excess of the minimum six (6) required shall be credited towards the minimum well requirement for the following unit year, being the period beginning April 1, 2021 to March 31, 2022 ("Unit Year 8"); and
3) On or before March 31, 2021, BPX will submit to the Commissioner of the GLO a Plan of Development for Unit Year 8.

BPX respectfully requests that the Commissioner of the GLO approve the above-described Plan of Development and confirm compliance with the development requirements of the Horseshoe Springs Agreement for the period April 1, 2019 to March 31, 2020 by signing in the space set forth below.

Respectfully submitted,

BPX Properties (NA) LP
By BPX Properties (GP) LLC, General Partner
Virginia Albert
Attorney-in-Fact

Confirmed and approved this 11 day of June, 2020, but effective April 1, 2020.

George P. Bush
Commissioner of the Texas General Land Office

Content DocuSigned by:
Division DocuSigned by:
Legal DocuSigned by:
Executive DocuSigned by:

54

File No. MF113061

Culberson County

HorseshoeSpring Year 7 Development Plan

Date Filed: 12/16/2021

George P. Bush, Commissioner

By: JM

bpx energy 10·27·21

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St
Denver, CO 80202

MF 113061
MF 111133

October 20, 2021

Texas General Land Office
Attn: Energy Resources
1700 North Congress Avenue
Austin, TX 78701

RE: **Surface Damage Payment – Pipeline**
HS State 113-20 Pad A & HS State 113-16 Pad C Oil Pipeline
MF113061A & MF111133
Sections 20 & 16, Block 113
Culberson County, Texas

Dear Texas General Land Office,

Enclosed herein, please find **Check No. 8005000689** in the amount of **$26,602.00** covering 1 – 4 inch oil pipeline on the subject line, which is outlined below:

Pipeline:	(349.36 rods) x ($150.00/rod)	=	$52,404.00
Total Damages:		=	**$52,404.00**
Total paid to Agent of the State:	($54,404.00 x 0.50)	=	$26,202.00
Total paid to the State of Texas:		=	**$26,202.00**

Should you have any questions or need additional assistance regarding this matter, please don't hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Cameron Finger

Cameron Finger
Surface Land Negotiator
Office: (303) 731-8260
Mobile: (720) 697-9363
Cameron.Finger@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Midstream, LLC
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

10.27.21

10/15/21

X07LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

VENDOR NUMBER: 0069000251 TRACE NUMBER: 2000005875

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900002809	**09/23/21**	**2021.218**	**26,602.00**		**26,602.00**
HS STATE OIL PL 113-16 & 20 MF					
HS State Oil PL 113-16 & 20 MF113061A & 111133					
			22701821		
		TOTALS	26,602.00		26,602.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005000689 ATTACHED BELOW

bpx energy

BPX Midstream, LLC
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005000689**

22701821 10/15/21

PAY TO THE ORDER OF

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

*******$26,602.00

NOT VALID AFTER 6 MONTHS

Twenty six thousand six hundred two and 00/100 Dollars

TRACE NUMBER: 2000005875

CITIBANK N.A.
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

⑈8005000689⑈ [redacted] [redacted]

EXHIBIT "A", PAGE 1 OF 2

A CENTERLINE DESCRIPTION FOR A 40' WIDE PERMIT

YELLOW TOP RANCH, INC., ET AL

"HSS OIL TANK BATTERY 113-20/16 113-16X9"

A CENTERLINE DESCRIPTION OF A PROPOSED PIPELINE IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 1849, L. E. McGILVEREY, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN ALUMINUM MONUMENT, AT THE SOUTHWEST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 43°11'10" E A DISTANCE OF 6,673.69 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE S 88°10'32" E A DISTANCE OF 101.27 FEET TO A POINT;
THENCE N 01°42'19" E A DISTANCE OF 356.33 FEET TO THE POINT OF TERMINATION, SAID POINT BEING LOCATED ON THE NORTH LINE OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS AND THE SOUTH LINE OF OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS, ALSO BEING N 06°09'21" W A DISTANCE OF 5,427.41 FEET FROM A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHEAST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 457.60 FEET OR 27.73 RODS AND CONTAINS 0.42 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

3/2/2021

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
501.328.3316 t 501.328.3325 f
www.craftontull.com

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
501.328.3316 f 501.328.3325 f
www.craftontull.com

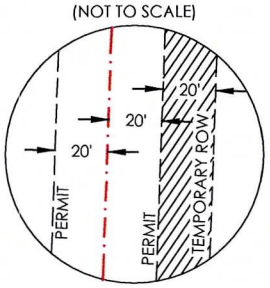
EXHIBIT "A" PAGE 2 OF 2 CULBERSON COUNTY, TEXAS

LEGEND

	CL OF PROPOSED PIPELINE PERMIT
	EXISTING PIPELINE ROUTE
	FENCE
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINATION
OHE	OVERHEAD ELECTRIC
LF	LINEAR FEET
	POWER POLE
	TELEPHONE RISER
	FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "A"
(NOT TO SCALE)



640 ACRES
YELLOW TOP RANCH
VOL. 194, PG. 502

P.O.T. OF A 40' WIDE PERMIT

CREEK

L2
SEE INSET "A"

L1

P.O.B. OF A 40' WIDE PERMIT

100' X 100' TEMPORARY WORKSPACE

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 20, BLK. 113
TOTAL: (457.60 L.F. OR 27.73 RODS)

P.O.C.
AN ALUM. MONUMENT AT THE SOUTHWEST CORNER OF SEC. 20, BLK. 113 BEING S 43°11'10" W - 6,673.69' FROM THE P.O.B.

A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHEAST CORNER OF SEC. 20, BLK. 113 BEING S 06°09'21" E - 5,427.41' FROM THE P.O.T.

"HSS OIL TANK BATTERY - 113-20/16 113-16X9"

NUMBER	BEARING	DISTANCE
L1	S 88°10'32" E	101.27'
L2	N 01°42'19" E	356.33'

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.999789064
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

3/2/2021

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET
300' 150' 0 300'

REVISION	
----	----

bpx energy BPX MIDSTREAM LLC.

"HSS OIL TANK BATTERY - 113-20/16 113-16X9"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 01

SCALE: 1" = 300'	CHECKED BY:	GHT	APPROVED BY: FRANS
PLOT DATE: 03-02-2021	DRAWN BY:	L.DOW	SHEET NO.: 2 OF 2

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0445 HSS 113-16 WC PIPELINE PRELIMINARY\HSS OIL OWNER PLATS.DWG 3/2/2021 12:47:21 PM LD1165

EXHIBIT "A", PAGE 1 OF 3

CENTERLINE DESCRIPTIONS FOR THREE 40' WIDE PERMITS

YELLOW TOP RANCH, INC., ET AL

CENTERLINE DESCRIPTIONS OF THREE PROPOSED PIPELINES IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 5115, J. M. COOKSEY, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

"HSS OIL TANK BATTERY 113-20/16 113-16X9" - SEGMENT 1

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 02°05'10" E A DISTANCE OF 5,573.98 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE S 88°17'41" E A DISTANCE OF 3,762.14 FEET TO A POINT;
THENCE N 89°49'39" E A DISTANCE OF 128.26 FEET TO A POINT;
THENCE N 00°10'21" W A DISTANCE OF 226.34 FEET TO A POINT;
THENCE N 89°59'55" E A DISTANCE OF 404.06 FEET TO A POINT;
THENCE N 00°23'44" W A DISTANCE OF 415.33 FEET TO A POINT;
THENCE S 89°59'16" E A DISTANCE OF 121.72 FEET TO A POINT;
THENCE N 00°02'49" W A DISTANCE OF 249.10 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 05°42'16" W A DISTANCE OF 6,559.92 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 5,306.95 FEET OR 321.63 RODS AND CONTAINS 4.87 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

"HSS OIL TANK BATTERY 113-20/16 113-16X9" - SEGMENT 2

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 36°54'10" E A DISTANCE OF 7,482.56 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE S 89°36'16" W A DISTANCE OF 100.00 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 08°04'00" W A DISTANCE OF 6,222.32 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 100.00 FEET OR 6.06 RODS AND CONTAINS 0.09 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

"HSS OIL TANK BATTERY 113-20/16 113-16X9" - SEGMENT 3

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 36°54'10" E A DISTANCE OF 7,482.56 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 89°42'23" E A DISTANCE OF 141.40 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 05°51'12" W A DISTANCE OF 6,194.47 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 141.40 FEET OR 8.57 RODS AND CONTAINS 0.13 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

THE ABOVE THREE DESCRIBED CENTERLINE HAVE A COMBINED TOTAL LENGTH OF 5,548.35 FEET OR 336.26 RODS AND CONTAINS 5.09 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

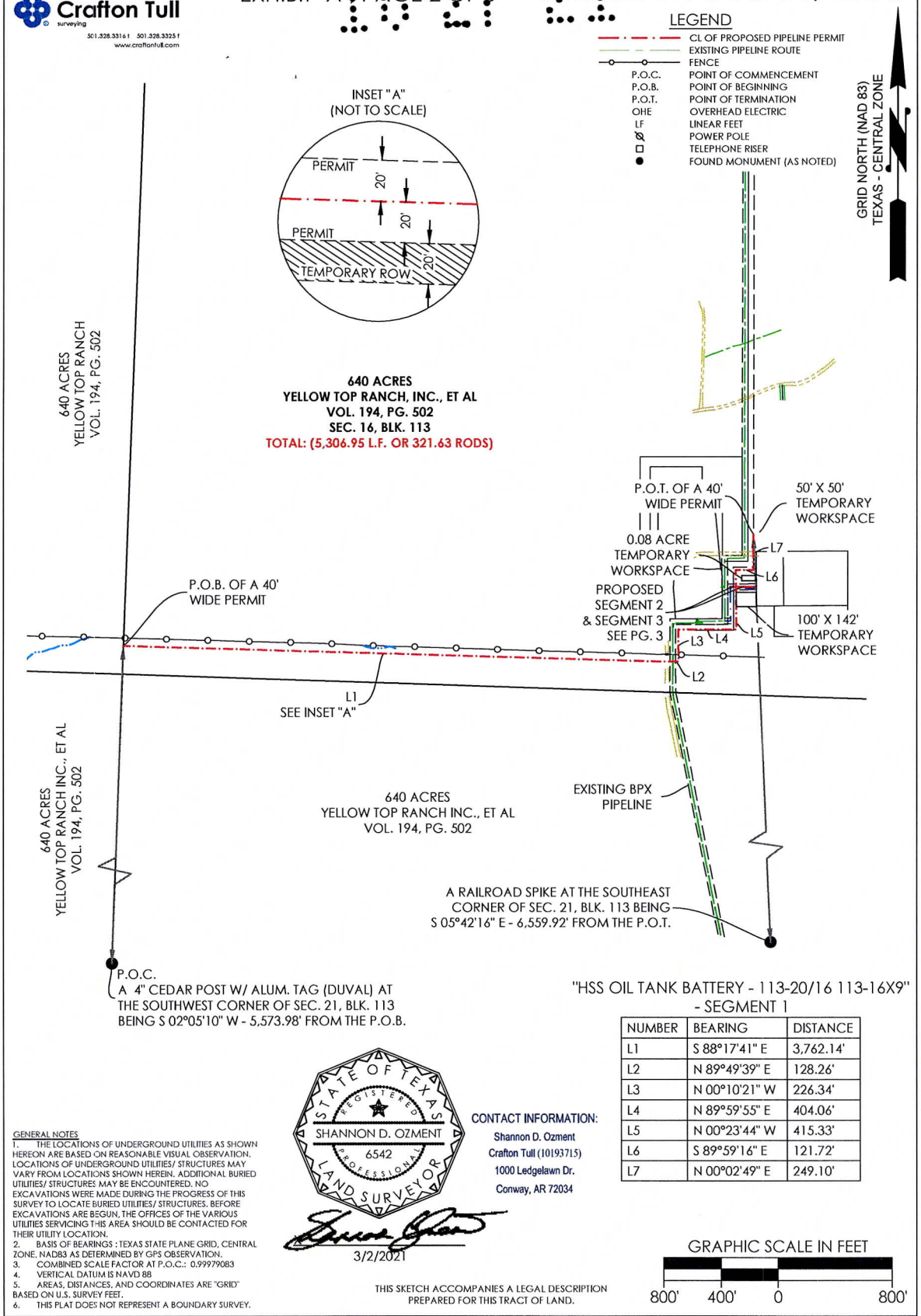
3/2/2021

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
501.328.3316 t 501.328.3325 f
www.craftontull.com

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull surveying
501.328.3316 f 501.328.3325 f
www.craftontull.com

EXHIBIT "A" PAGE 2 OF 3 CULBERSON COUNTY, TEXAS



"HSS OIL TANK BATTERY - 113-20/16 113-16X9" - SEGMENT 1

NUMBER	BEARING	DISTANCE
L1	S 88°17'41" E	3,762.14'
L2	N 89°49'39" E	128.26'
L3	N 00°10'21" W	226.34'
L4	N 89°59'55" E	404.06'
L5	N 00°23'44" W	415.33'
L6	S 89°59'16" E	121.72'
L7	N 00°02'49" E	249.10'

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.99979083
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

3/2/2021

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET
800' 400' 0 800'

REVISION		
---	---	---

bpx energy BPX MIDSTREAM LLC.

"HSS OIL TANK BATTERY - 113-20/16 113-16X9"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 03

SCALE: 1" = 800'	CHECKED BY:	GHT	APPROVED BY: FRANS
PLOT DATE: 03-02-2021	DRAWN BY:	L.DOW	SHEET NO.: 2 OF 3

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0445 HSS 113-16 WC PIPELINE PRELIMINARY\HSS OIL OWNER PLATS.DWG 3/2/2021 12:51:00 PM LD1165

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull surveying
501.328.3316 f 501.328.3325 f
www.craftontull.com

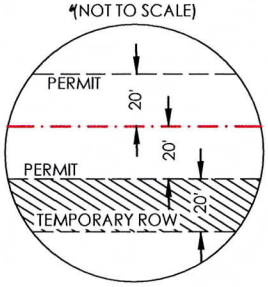
EXHIBIT "A" PAGE 3 OF 3 CULBERSON COUNTY, TEXAS

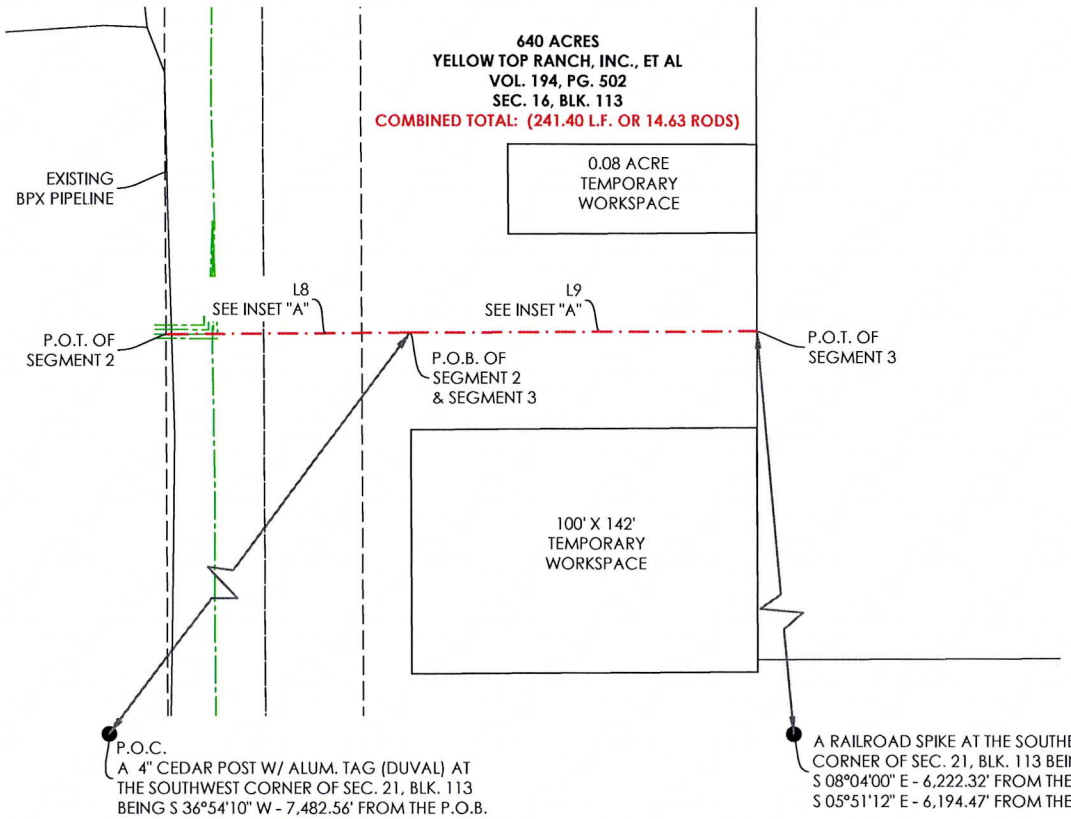
LEGEND

	CL OF PROPOSED PIPELINE PERMIT
	EXISTING PIPELINE ROUTE
	FENCE
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINATION
OHE	OVERHEAD ELECTRIC
LF	LINEAR FEET
	POWER POLE
	TELEPHONE RISER
	FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "A"
(NOT TO SCALE)





"HSS OIL TANK BATTERY - 113-20/16 113-16X9"
-SEGMENT 2

NUMBER	BEARING	DISTANCE
L8	S 89°36'16" W	100.00'

TOTAL: (100.00 L.F. OR 6.06 RODS)

"HSS OIL TANK BATTERY - 113-20/16 113-16X9"
- SEGMENT 3

NUMBER	BEARING	DISTANCE
L9	N 89°42'23" E	141.40'

TOTAL: (141.40 L.F. OR 8.57 RODS)

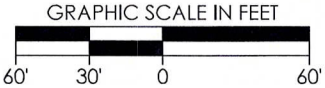
STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

3/2/2021

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.99979083
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

GRAPHIC SCALE IN FEET



THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

REVISION		
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bpx energy BPX MIDSTREAM LLC.

"HSS OIL TANK BATTERY - 113-20/16 113-16X9"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 03

SCALE: 1" = 60'	CHECKED BY: GHT	APPROVED BY: FRANS
PLOT DATE: 03-02-2021	DRAWN BY: L.DOW	SHEET NO.: 3 OF 3

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0445 HSS 113-16 WC PIPELINE PRELIMINARY\HSS OIL OWNER PLATS.DWG 3/2/2021 12:55:11 PM LD1165

55

File No. MF 113061

Surface Damages County

Date Filed: 1-28-22

George P. Bush, Commissioner

By

bpx energy

2.14.22

bp

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St
Denver, CO 80202

February 10, 2022

Texas General Land Office
Attn: Energy Resources
1700 North Congress Avenue
Austin, Texas 78701

RE: **Water Use – Construction, Drilling and Completions**
HS State 113-16 W107H & 106H 2020 Water Use
MF 113061A
Culberson County, Texas

Dear Texas General Land Office,

Enclosed herein, please find checks for water use for construction, drilling and completions operations for the subject line well pads.

HS State 113-16 W106H

- 300,220 bbls used x $1.50 = $450,330.00 (split amongst the GLO, HE Cattle Co. and Cocanougher)
  - GLO Payment: $123,883.50 paid on 4/6/2020
  - GLO Payment: $19,557.75 paid on 10/30/2020
  - **GLO Payment: $79,279.04 (check # 8005001727 enclosed)**

HS State 113-16 W107H

- 286,885.67 bbls used x $1.50 = $430,328.50 (split amongst the GLO, HE Cattle Co. and Cocanougher)
  - GLO Payment: $123,882.75 paid on 4/13/2020
  - GLO Payment: $19,557.75 paid on 10/30/2020
  - **GLO Payment: $71,293.79 (check # 8005001728 enclosed)**

Should you have any questions or need additional assistance regarding this matter, please don't hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Cameron Finger

Cameron Finger
Surface Land Negotiator
Office: (303) 731-8260
Mobile: (720) 697-9363
Cameron.Finger@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

12/31/21

2·14·22

X01LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000039683

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900149329	**12/22/21**	**2021.313**	**79,279.04**		**79,279.04**
HS STATE 113-16 MF113061A W106					
HS State 113-16 MF113061A W106H Water Use					
		TOTALS	79,279.04		79,279.04

22704868

161

X

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005001727 ATTACHED BELOW

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005001727**

12/31/21

PAY TO THE ORDER OF

22704868

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

*******$79,279.04

NOT VALID AFTER 6 MONTHS

Seventy nine thousand two hundred seventy nine and 04/100 Dollars

TRACE NUMBER: 2000039683

CITIBANK N.A
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

⑈8005001727⑈ [redacted]

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

12/31/21

2·14·22

X01LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000039684

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900149626	**12/22/21**	**2021.315**	**71,293.79**		**71,293.79**
HS STATE 113-16 MF113061A W107					
HS State 113-16 MF113061A W107H Water Use					
					22704845
		TOTALS	71,293.79		71,293.79

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL
(800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005001728 ATTACHED BELOW

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005001728**

12/31/21

PAY TO THE ORDER OF

22704845

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

*******$71,293.79

NOT VALID AFTER 6 MONTHS

Seventy one thousand two hundred ninety three and 79/100 Dollars

TRACE NUMBER: 2000039684

CITIBANK N.A.
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

⑈8005001728⑈ [redacted] [redacted]

(56)

File No. MF113061

Calberson County

Dmg. Pmt.

Date Filed: 3-30-2022

George P. Bush, Commissioner

By CE

bpx energy

bp

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St, Suite 150
Denver, CO 80202

Done
11/2/22
Surface
Damages

October 24, 2022

State of Texas - GLO
c/o Commissioner of the Texas General Land Office
1700 N. Congress
Austin, Texas 78701

RE: **Horseshoe Springs State 113-16x9 W108H - GLO ID# - MF113061A**
Section 14, Block 113 Public School Land Survey
Culberson County, Texas

Pad

Dear Commissioner,

Enclosed with this letter please find Check # 8005002275 in the amount of $10,000.00, in connection with the referenced pad-site and road. BPX is extending the term of the surface agreement for an additional five (5) year term. A total fee of $20,000 was agreed to, the State of Texas-GLO portion equals 50% or $10,000.00 The remainder of the payment will be divided proportionately between Yellow Top Ranch at 75% or $7,500.00 and Cocanougher Asset #2 LTD at 25% or $2,500.00.

Should you have any questions or need additional assistance regarding this matter, please do not hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Clayt Gohmert
Surface Land Negotiator
Direct: (307) 202-9495
Mobile: (361) 243-5000
Clayt.Gohmert@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

10/18/22

X01LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000058577

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900237818	**10/14/22**	**2022.147**	**10,000.00**		**10,000.00**
TERM EXTENSION HSS STATE 113-1					
Term Extension HSS State 113-16x9 W108H Pad B ÔÇô MF					
		23701524			
		TOTALS	10,000.00		10,000.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005002275 ATTACHED BELOW

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005002275**

10/18/22

PAY TO THE ORDER OF

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

*******$10,000.00

NOT VALID AFTER 6 MONTHS

23701524

Ten thousand and 00/100 Dollars

TRACE NUMBER: 2000058577

CITIBANK N.A.
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

121

bpx energy

bp

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St, Suite 150
Denver, CO 80202

Done
Surface Damage
11/2/22

October 24, 2022

State of Texas - GLO
c/o Commissioner of the Texas General Land Office
1700 N. Congress
Austin, Texas 78701

RE: **Horseshoe Springs State 113-24x13 W102H Pad Term Renewal - GLO ID# - MF111133**
Section 24, Block 113 Public School Land Survey
Culberson County, Texas

Dear Commissioner,

Enclosed with this letter please find Check # 8005002274 in the amount of $10,000.00, in connection with the referenced pad-site and road. BPX is extending the term of the surface agreement for an additional five (5) year term. A total fee of $20,000 was agreed to, the State of Texas-GLO portion equals 50% or $10,000.00 The remainder of the payment will be divided proportionately between Yellow Top Ranch at 75% or $7,500.00 and Cocanougher Asset #2 LTD at 25% or $2,500.00.

Should you have any questions or need additional assistance regarding this matter, please do not hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Clayt Gohmert
Surface Land Negotiator
Direct: (307) 202-9495
Mobile: (361) 243-5000
Clayt.Gohmert@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

10/18/22

X01LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000058576

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900237652	**10/14/22**	**2022.145**	**10,000.00**		**10,000.00**
TERM EXTENSION HSS STATE 113-2					
Term Extension HSS State 113-24x13 W102H ÔÇô MF11113					
		23701525			
		TOTALS	10,000.00		10,000.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005002274 ATTACHED BELOW

bpx energy

BPX Operating Company
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005002274**

10/18/22

PAY TO THE ORDER OF

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

*******$10,000.00

NOT VALID AFTER 6 MONTHS

Ten thousand and 00/100 Dollars 23701525

TRACE NUMBER: 2000058576

CITIBANK N.A.
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

12 ⑈8005002274⑈ [redacted] [redacted]

57

File No. MF-113061

Surface Damage County

Date Filed: 3/24/23

Commissioner Dawn Buckingham, M.D.

By:

113061
113596

bpx energy

bp

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St
Denver, CO 80202

December 10, 2020

Texas General Land Office
Attn: Energy Resources
1700 North Congress Avenue
Austin, Texas 78701

Surf Damages

RE: **Surface Damages**
HS State 113-20 Pad A Pipeline Well Connect
Sections 16, 17 & 20, Block 113
Culberson County, Texas

Dear Texas General Land Office,

Enclosed herein, please find **Check No. 8005000472** in the amount of **$40,000.00** for a water and gas pipeline for the subject line well pad pipeline connect. The enclosed check covers payment for the pipeline well connect, which is outlined below:

Well Pad Site: (1 - water and 1 - gas pipeline)		=	$80,000.00
Total paid to Agent of the State:	($80,000.00 x 0.50)	=	$40,000.00
Total paid to the State of Texas:	**($80,000.00 x 0.50)**	=	**$40,000.00**

Should you have any questions or need additional assistance regarding this matter, please don't hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Per Deb pkg file

Cameron Finger
Surface Land Negotiator
Office: (303) 731-8260
Mobile: (720) 697-9363
Cameron.Finger@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Midstream, LLC
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

12/04/20

X07LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

21703320

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000003681

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900002312	**12/03/20**	**2020.483**	**40,000.00**		**40,000.00**
HS STATE PAD A 113-20 PIPELINE					
HS State Pad A 113-20 Pipelines					
					161
		TOTALS	40,000.00		X 40,000.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005000472 ATTACHED BELOW

EXHIBIT "A", PAGE 1 OF 3

CENTERLINE DESCRIPTIONS FOR TWO 40' WIDE PERMITS

YELLOW TOP RANCH, INC., ET AL

CENTERLINE DESCRIPTIONS OF TWO PROPOSED PIPELINES IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 5115, J. M. COOKSEY, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

"HSS 113-20 PAD A WELL CONNECT" - SEGMENT 1

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 02°05'10" E A DISTANCE OF 5,573.98 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE S 88°17'41" E A DISTANCE OF 3,762.14 FEET TO A POINT;
THENCE N 89°49'39" E A DISTANCE OF 128.26 FEET TO A POINT;
THENCE N 00°10'21" W A DISTANCE OF 241.34 FEET TO A POINT;
THENCE N 89°59'55" E A DISTANCE OF 166.70 FEET TO A POINT;
THENCE N 00°09'59" W A DISTANCE OF 60.00 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 09°38'26" W A DISTANCE OF 6,023.09 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 4,358.44 FEET OR 264.15 RODS AND CONTAINS 4.00 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

"HSS 113-20 PAD A WELL CONNECT" - SEGMENT 2

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 36°45'27" E A DISTANCE OF 7,114.63 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 89°59'55" E A DISTANCE OF 152.05 FEET TO A POINT;
THENCE N 00°00'05" W A DISTANCE OF 44.48 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 08°13'42" W A DISTANCE OF 5,984.12 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 196.53 FEET OR 11.91 RODS AND CONTAINS 4.18 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 4,554.97 FEET OR 276.06 RODS AND CONTAINS 0.18 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
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www.craftontull.com

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www.craftontull.com

EXHIBIT "A", PAGE 2 OF 3

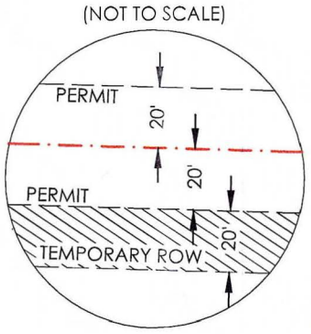
CULBERSON COUNTY, TEXAS

LEGEND

	CL OF PROPOSED PIPELINE PERMIT
	EXISTING PIPELINE ROUTE
	FENCE
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINATION
OHE	OVERHEAD ELECTRIC
LF	LINEAR FEET
	POWER POLE
	TELEPHONE RISER
	FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "A"
(NOT TO SCALE)



640 ACRES
YELLOW TOP RANCH, INC.
VOL. 194, PG. 502

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 16, BLK. 113
TOTAL: (4,358.44 L.F. OR 264.15 RODS)

P.O.T. OF A 40' WIDE PERMIT

P.O.B. OF A 40' WIDE PERMIT

PROPOSED "HSS 113-20 PAD A WELL CONNECT" SEGMENT 2 SEE PG. 3

L5
L4
L3
L2
L1
SEE INSET "A"

100' X 100' TEMPORARY WORKSPACE

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502

A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SEC. 21, BLK. 113 BEING S 09°38'26" E - 6,023.09' FROM THE P.O.T.

P.O.C.
A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHWEST CORNER OF SEC. 21, BLK. 113 BEING S 02°05'10" W - 5,573.98' FROM THE P.O.B.

"HSS 113-20 PAD A WELL CONNECT"
SEGMENT 1

NUMBER	BEARING	DISTANCE
L1	S 88°17'41" E	3,762.14'
L2	N 89°49'39" E	128.26'
L3	N 00°10'21" W	241.34'
L4	N 89°59'55" E	166.70'
L5	N 00°09'59" W	60.00'

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.99979083
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET
1000' 500' 0 1000'

REVISION	
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bpx energy BPX MIDSTREAM LLC.

"HSS 113-20 PAD A WELL CONNECT"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 03

SCALE: 1" = 1000'	CHECKED BY: C. GRAY	APPROVED BY: FRANS
PLOT DATE: 12-02-2020	DRAWN BY: ALP	SHEET NO.: 2 OF 3

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0433 HSS 113-20 PAD A WC PIPELINE PRELIMINARY - 4710021372 - 13867.26\BPX PIPELINE OWNER PLATS.DWG 12/2/20

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
surveying
501.328.3316 t 501.328.3325 f
www.craftontull.com

EXHIBIT "A", PAGE 3 OF 3

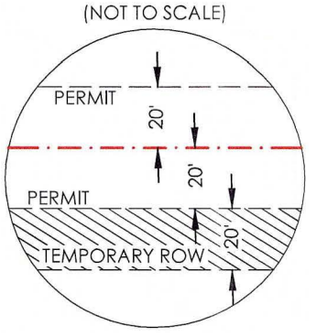
CULBERSON COUNTY, TEXAS

LEGEND

- CL OF PROPOSED PIPELINE PERMIT
- EXISTING PIPELINE ROUTE
- FENCE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- OHE OVERHEAD ELECTRIC
- LF LINEAR FEET
- POWER POLE
- TELEPHONE RISER
- FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "B"
(NOT TO SCALE)



640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 16, BLK. 113
TOTAL: (196.53 L.F. OR 11.91 RODS)

EXISTING BPX PERMIT

P.O.T. OF A 40' WIDE PERMIT

L7

L6
SEE INSET "B"

"HSS 113-20 PAD A WELL CONNECT" SEGMENT 1 SEE PG. 2

P.O.B. OF A 40' WIDE PERMIT

100' X 100' TEMPORARY WORKSPACE

A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SEC. 21, BLK. 113 BEING S 08°13'42" E - 5,984.12' FROM THE P.O.T.

P.O.C.
A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHWEST CORNER OF SEC. 21, BLK. 113 BEING S 36°45'27" W - 7,114.63' FROM THE P.O.B.

"HSS 113-20 PAD A WELL CONNECT"
SEGMENT 2

NUMBER	BEARING	DISTANCE
L6	N 89°59'55" E	152.05'
L7	N 00°00'05" W	44.48'

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.99979083
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET
60' 30' 0 60'

REVISION	
----	----

bpx energy BPX MIDSTREAM LLC.

"HSS 113-20 PAD A WELL CONNECT"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 03

SCALE: 1" = 60'	CHECKED BY:	C. GRAY	APPROVED BY: FRANS
PLOT DATE: 12-02-2020	DRAWN BY:	ALP	SHEET NO.: 3 OF 3

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0433 HSS 113-20 PAD A WC PIPELINE PRELIMINARY - 4710021372 - 13867.26\BPX PIPELINE OWNER PLATS.DWG 12/2/20

EXHIBIT "A", PAGE 1 OF 2

CENTERLINE DESCRIPTIONS FOR A 120' WIDE PERMIT AND A 40' WIDE PERMIT

YELLOW TOP RANCH, INC., ET AL

"HSS 113-20 PAD A WELL CONNECT"

A CENTERLINE DESCRIPTION OF A PROPOSED PIPELINE IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 1849, L. E. McGILVEREY, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN ALUMINUM MONUMENT, AT THE SOUTHWEST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 45°24'16" E A DISTANCE OF 6,541.57 FEET TO THE POINT OF BEGINNING OF A 120 FOOT WIDE PERMIT BEING 20 FEET ON THE RIGHT SIDE AND 100 FEET ON THE LEFT SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 01°55'02" E A DISTANCE OF 595.08 FEET TO THE POINT OF TERMINATION OF SAID 120 FOOT WIDE EASEMENT, SAME BEING THE POINT OF BEGINNING OF A 40 FOOT WIDE EASEMENT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 01°55'02" E A DISTANCE OF 31.39 FEET TO THE POINT OF TERMINATION, SAID POINT BEING LOCATED ON THE NORTH LINE OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS AND THE SOUTH LINE OF OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS, ALSO BEING N 06°09'21" W A DISTANCE OF 5,427.35 FEET FROM A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHEAST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 626.47 FEET OR 37.97 RODS AND CONTAINS 1.67 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
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surveying
501.328.3316 t 501.328.3325 f
www.craftontull.com

EXHIBIT "A", PAGE 2 OF 2

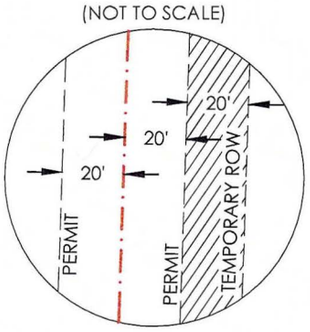
CULBERSON COUNTY, TEXAS

LEGEND

- CL OF PROPOSED PIPELINE PERMIT
- EXISTING PIPELINE ROUTE
- FENCE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- OHE OVERHEAD ELECTRIC
- LF LINEAR FEET
- POWER POLE
- TELEPHONE RISER
- FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "B"
(NOT TO SCALE)



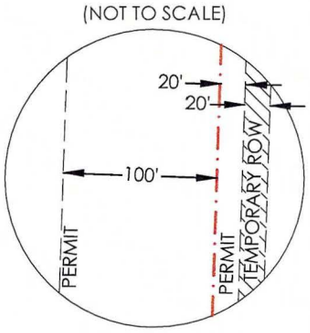
640 ACRES
YELLOW TOP RANCH
VOL. 194, PG. 502

P.O.T. OF A 40'
WIDE PERMIT

P.O.T. OF A 120'
WIDE PERMIT/
P.O.B. OF A 40'
WIDE PERMIT

L2
SEE INSET "B"

INSET "A"
(NOT TO SCALE)



L1
SEE INSET "A"

100' X 100'
TEMPORARY
WORKSPACE

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 20, BLK. 113
TOTAL: (626.47 L.F. OR 37.97 RODS)

P.O.B. OF A 120'
WIDE PERMIT

P.O.C.
AN ALUM. MONUMENT AT THE SOUTHWEST CORNER OF SEC. 20, BLK. 113 BEING S 45°24'16" W - 6,541.57' FROM THE P.O.B.

A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHEAST CORNER OF SEC. 20, BLK. 113 BEING S 06°09'21" E - 5,427.35' FROM THE P.O.T.

"HSS 113-20 PAD A WELL CONNECT"

NUMBER	BEARING	DISTANCE
L1	N 01°55'02" E	595.08'
L2	N 01°55'02" E	31.39'

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.999789064
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

GRAPHIC SCALE IN FEET

300' 150' 0 300'

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

REVISION	
----	----

bpx energy BPX MIDSTREAM LLC.

"HSS 113-20 PAD A WELL CONNECT"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 01

SCALE: 1" = 300'	CHECKED BY: C. GRAY	APPROVED BY: SO
PLOT DATE: 12-02-2020	DRAWN BY: ALP	SHEET NO.: 2 OF 2

EXHIBIT "A", PAGE 1 OF 2

CENTERLINE DESCRIPTION FOR TWO 40' WIDE PERMITS AND ONE 100' WIDE PERMIT

YELLOW TOP RANCH, INC.

"HSS 113-20 PAD A WELL CONNECT"

A CENTERLINE DESCRIPTION OF A PROPOSED PIPELINE IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 6875, M. H. REED, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN ALUMINUM MONUMENT, AT THE SOUTHWEST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 41°52'40" E A DISTANCE OF 7,009.39 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 01°42'19" E A DISTANCE OF 197.45 FEET TO THE POINT OF TERMINATION OF SAID 40 FOOT WIDE EASEMENT, SAME BEING THE POINT OF BEGINNING OF A 100 FOOT WIDE EASEMENT BEING 20 FEET ON THE LEFT SIDE AND 80 FEET ON THE RIGHT SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE S 88°17'41" E A DISTANCE OF 230.00 FEET TO THE POINT OF TERMINATION OF SAID 100 FOOT WIDE EASEMENT, SAME BEING THE POINT OF BEGINNING OF A 40 FOOT WIDE EASEMENT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

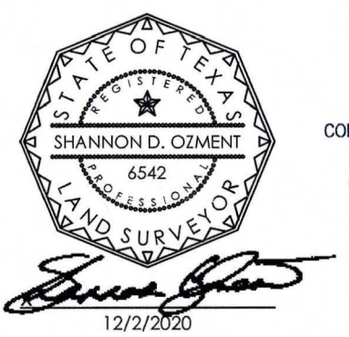
THENCE S 88°17'41" E A DISTANCE OF 548.32 FEET TO THE POINT OF TERMINATION, SAID POINT BEING LOCATED ON THE EAST LINE OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS AND THE WEST LINE OF OF A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS, ALSO BEING N 02°05'10" E A DISTANCE OF 5,573.98 FEET FROM A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHEAST CORNER OF SECTION 20, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 976.83 FEET OR 59.20 RODS AND CONTAINS 1.21 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.



12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

1000 Ledgelawn Dr.
Conway, Arkansas 72034

Crafton Tull
surveying

501.328.3316 t 501.328.3325 f
www.craftontull.com

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull surveying
501.328.3316 t 501.328.3325 f
www.craftontull.com

EXHIBIT "A", PAGE 2 OF 2

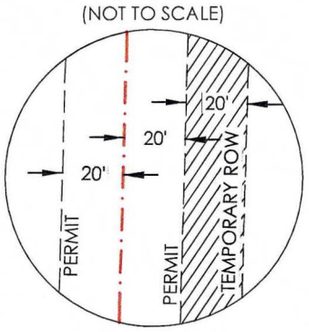
CULBERSON COUNTY, TEXAS

LEGEND

	CL OF PROPOSED PIPELINE PERMIT
	EXISTING PIPELINE ROUTE
	FENCE
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINATION
OHE	OVERHEAD ELECTRIC
LF	LINEAR FEET
	POWER POLE
	TELEPHONE RISER
	FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

INSET "A"
(NOT TO SCALE)



640 ACRES
YELLOW TOP RANCH
VOL. 194, PG. 502
SEC. 17, BLK. 113
TOTAL: (976.83 L.F. OR 59.20 RODS)

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502

P.O.T. OF A 100' WIDE PERMIT / P.O.B. OF 40' WIDE PERMIT

P.O.T. OF A 40' WIDE PERMIT

L2
SEE INSET "B"

P.O.T. OF A 40' WIDE PERMIT / P.O.B. OF 100' WIDE PERMIT

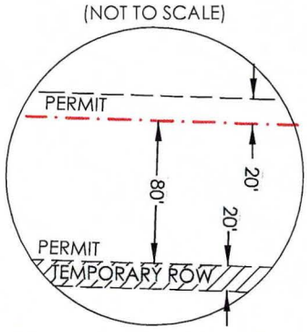
L1
SEE INSET "A"

L3
SEE INSET "C"

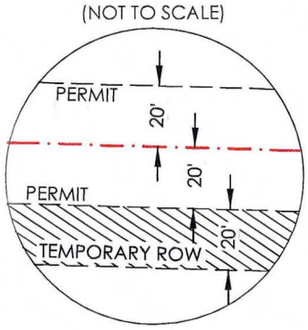
P.O.B. OF A 40' WIDE PERMIT

640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502

INSET "B"
(NOT TO SCALE)



INSET "C"
(NOT TO SCALE)



P.O.C.
AN ALUM. MONUMENT AT THE SOUTHWEST CORNER OF SEC. 20, BLK. 113 BEING S 41°52'40" W - 7,009.39' FROM THE P.O.B.

A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHEAST CORNER OF SEC. 20, BLK. 113 BEING S 02°05'10" W - 5,573.98' FROM THE P.O.T.

"HSS 113-20 PAD A WELL CONNECT"

NUMBER	BEARING	DISTANCE
L1	N 01°42'19" E	197.45'
L2	S 88°17'41" E	230.00'
L3	S 88°17'41" E	549.38'

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
2. BASIS OF BEARINGS : TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.
3. COMBINED SCALE FACTOR AT P.O.C.: 0.999789064
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

GRAPHIC SCALE IN FEET

300' 150' 0 300'

REVISION	
---	---

bpx energy BPX MIDSTREAM LLC.

"HSS 113-20 PAD A WELL CONNECT"
YELLOW TOP RANCH, INC.
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 02

SCALE: 1" = 300'	CHECKED BY:	C. GRAY	APPROVED BY: HFD
PLOT DATE: 12-02-2020	DRAWN BY:	ALP	SHEET NO.: 2 OF 2

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0433 HSS 113-20 PAD A WC PIPELINE PRELIMINARY - 4710021372 - 13867.26\BPX PIPELINE OWNER PLATS.DWG 12/2/20

File No. MF113061

County

Surface Damage Pmt

Date Filed: 6/21/2024

George P. Bush, Commissioner

By VG

bpx energy

bp

BP America Production Company
BPX Energy Inc.
Permian Development – Land Department
1700 Platte St
Denver, CO 80202

December 10, 2020

MF

Texas General Land Office
Attn: Energy Resources
1700 North Congress Avenue
Austin, Texas 78701

RE: **Surface Damages**
HS State 113-16 Pad C Pipeline Well Connect
Section 16, Block 113
Culberson County, Texas

Dear Texas General Land Office,

Enclosed herein, please find **Check No. 8005000473** in the amount of **$5,000.00** for a water and gas pipeline for the subject line well pad pipeline connect. The enclosed check covers payment for the pipeline well connect, which is outlined below:

Well Pad Site: (1 - water and 1 - gas pipeline)		=	$10,000.00
Total paid to Agent of the State:	($10,000.00 x 0.50)	=	$5,000.00
Total paid to the State of Texas:	**($10,000.00 x 0.50)**	=	**$5,000.00**

Should you have any questions or need additional assistance regarding this matter, please don't hesitate to contact me at the telephone numbers or email address listed below.

Respectfully,

Per Deb p/u file

Cameron Finger
Surface Land Negotiator
Office: (303) 731-8260
Mobile: (720) 697-9363
Cameron.Finger@bpx.com

BPX Energy companies: BPX Production Company; BPX Midstream LLC; BPX Gathering Holdings LLC; BPX (Karnes) Gathering LLC; BPX (Permian) Gathering LLC; BPX Operating Company; BPX Properties (GP) LLC; BPX Properties (LP) LLC; BPX (Eagle Ford) Gathering LLC; BPX Properties (NA) LP; BPX (KCS Resources) LLC; BPX (WSF Operating) Inc.; South Texas Shale LLC; Winwell Resources, L.L.C.

bpx energy

BPX Midstream, LLC
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

12/04/20

X07LH

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

21703319

VENDOR NUMBER: 0069000251

TRACE NUMBER: 2000003682

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900002314	**12/03/20**	**2020.486**	**5,000.00**		**5,000.00**
HS STATE PAD C 113-16 PIPELINE					
HS State Pad C 113-16 Pipelines					
					161
		TOTALS	5,000.00		X 5,000.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL
(800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICE TO BP.
*** YOUR VENDOR NUMBER IS 0069000251

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 8005000473 ATTACHED BELOW

bpx energy

BPX Midstream, LLC
Attn: BP GBS Americas - P2P Treasury Payments
150 West Warrenville Road, Building 605, 3rd Floor
Naperville, IL 60563

62-20
311

CHECK NO. **8005000473**

12/04/20

PAY TO THE ORDER OF

21703319

COMMISSIONER OF THE TEXAS GENERAL
LAND OFFICE
1700 N CONGRESS
AUSTIN, TX 78701-1495 US

********$5,000.00

NOT VALID AFTER 6 MONTHS

Five thousand and 00/100 Dollars

TRACE NUMBER: 2000003682

CITIBANK N.A.
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

⑈8005000473⑈ [redacted]

EXHIBIT "A", PAGE 1 OF 2

CENTERLINE DESCRIPTIONS FOR TWO 40' WIDE PERMITS

YELLOW TOP RANCH, INC., ET AL

CENTERLINE DESCRIPTIONS OF TWO PROPOSED PIPELINES IN, OVER, ACROSS, AND THROUGH A 640 ACRE TRACT RECORDED IN VOLUME 194, PAGE 502, CULBERSON COUNTY, TEXAS DEED RECORDS, BEING OUT OF ABSTRACT NUMBER 5115, J. M. COOKSEY, ORIGINAL GRANTEE, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

"HSS 113-16 WELL CONNECT" - SEGMENT 1

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 36°34'27" E A DISTANCE OF 7,097.68 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 89°59'55" E A DISTANCE OF 225.68 FEET TO A POINT;
THENCE N 00°23'44" W A DISTANCE OF 283.14 FEET TO A POINT;
THENCE N 89°36'16" E A DISTANCE OF 181.40 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 05°51'12" W A DISTANCE OF 6,194.72 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 690.22 FEET OR 41.83 RODS AND CONTAINS 0.63 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

"HSS 113-16 WELL CONNECT" - SEGMENT 2

COMMENCING AT AN A 4 INCH CEDAR POST WITH AN ALUMINUM TAG (DUVAL) AT THE SOUTHWEST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS; THENCE N 37°30'39" E A DISTANCE OF 7,241.89 FEET TO THE POINT OF BEGINNING OF A 40 FOOT WIDE PERMIT BEING 20 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE;

THENCE N 89°36'16" E A DISTANCE OF 44.95 FEET TO THE POINT OF TERMINATION, SAID POINT BEING N 07°48'06" W A DISTANCE OF 5,978.16 FEET FROM A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SECTION 21, BLOCK 113, CULBERSON COUNTY, TEXAS.

THE ABOVE DESCRIBED CENTERLINE HAS A TOTAL LENGTH OF 44.95 FEET OR 2.72 RODS AND CONTAINS 0.04 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

THE TWO ABOVE DESCRIBED CENTERLINES HAVE A COMBINED TOTAL LENGTH OF 735.17 FEET OR 44.56 RODS AND CONTAINS 0.67 ACRES OF PERMIT, MORE OR LESS. LESS AND EXCEPT ALL PERMITS AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS: TEXAS STATE PLANE GRID, CENTRAL ZONE, NAD83 AS DETERMINED BY GPS OBSERVATION.

ALL DISTANCES ARE GRID DISTANCES BASED ON U.S. SURVEY FEET

THIS LEGAL DESCRIPTION ACCOMPANIES A SKETCH PREPARED FOR THIS TRACT OF LAND.

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

1000 Ledgelawn Dr.
Conway, Arkansas 72034
Crafton Tull
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501.328.3316 t 501.328.3325 f
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1000 Ledgelawn Dr.
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501.328.3316 t 501.328.3325 f
www.craftontull.com

EXHIBIT "A", PAGE 2 OF 2

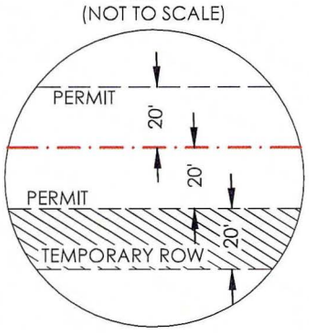
CULBERSON COUNTY, TEXAS

LEGEND

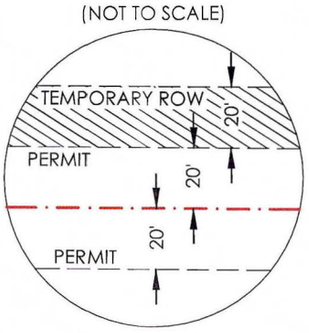
- CL OF PROPOSED PIPELINE PERMIT
- EXISTING PIPELINE ROUTE
- FENCE
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- OHE OVERHEAD ELECTRIC
- LF LINEAR FEET
- POWER POLE
- TELEPHONE RISER
- FOUND MONUMENT (AS NOTED)

GRID NORTH (NAD 83)
TEXAS - CENTRAL ZONE

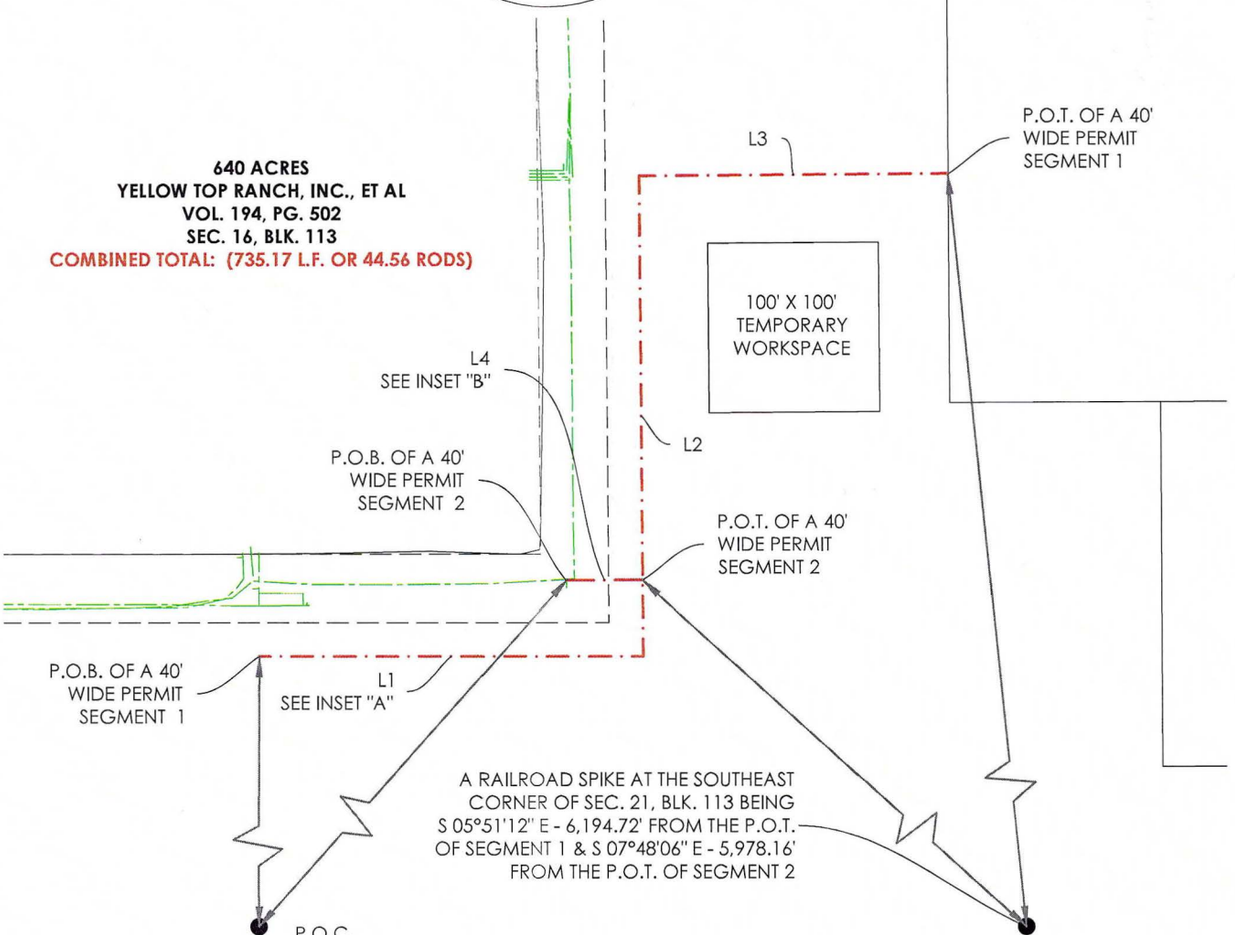
INSET "A"
(NOT TO SCALE)



INSET "B"
(NOT TO SCALE)



640 ACRES
YELLOW TOP RANCH, INC., ET AL
VOL. 194, PG. 502
SEC. 16, BLK. 113
COMBINED TOTAL: (735.17 L.F. OR 44.56 RODS)



A RAILROAD SPIKE AT THE SOUTHEAST CORNER OF SEC. 21, BLK. 113 BEING S 05°51'12" E - 6,194.72' FROM THE P.O.T. OF SEGMENT 1 & S 07°48'06" E - 5,978.16' FROM THE P.O.T. OF SEGMENT 2

P.O.C.
A 4" CEDAR POST W/ ALUM. TAG (DUVAL) AT THE SOUTHWEST CORNER OF SEC. 21, BLK. 113 BEING S 36°34'27" W - 7,097.68' FROM THE P.O.B. OF SEGMENT 1 & S 37°30'39" W - 7,241.89' FROM THE P.O.B. OF SEGMENT 2

"HSS 113-16 WELL CONNECT"
SEGMENT 1

NUMBER	BEARING	DISTANCE
L1	N 89°59'55" E	225.68'
L2	N 00°23'44" W	283.14'
L3	N 89°36'16" E	181.40'

TOTAL: (690.22 L.F. OR 41.83 RODS)

"HSS 113-16 WELL CONNECT"
SEGMENT 2

NUMBER	BEARING	DISTANCE
L4	N 89°36'16" E	44.95'

TOTAL: (44.95 L.F. OR 2.72 RODS)

GRAPHIC SCALE IN FEET

100' 50' 0 100'

STATE OF TEXAS
REGISTERED
SHANNON D. OZMENT
6542
PROFESSIONAL
LAND SURVEYOR

12/2/2020

CONTACT INFORMATION:
Shannon D. Ozment
Crafton Tull (10193715)
1000 Ledgelawn Dr.
Conway, AR 72034

GENERAL NOTES
1. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON REASONABLE VISUAL OBSERVATION. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREIN. ADDITIONAL BURIED UTILITIES/ STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/ STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE OFFICES OF THE VARIOUS UTILITIES SERVICING THIS AREA SHOULD BE CONTACTED FOR THEIR UTILITY LOCATION.
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3. COMBINED SCALE FACTOR AT P.O.C.: 0.99979083
4. VERTICAL DATUM IS NAVD 88
5. AREAS, DISTANCES, AND COORDINATES ARE "GRID" BASED ON U.S. SURVEY FEET.
6. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SKETCH ACCOMPANIES A LEGAL DESCRIPTION PREPARED FOR THIS TRACT OF LAND.

REVISION	
----	----

bpx energy BPX MIDSTREAM LLC.

"HSS 113-16 WELL CONNECT"
YELLOW TOP RANCH, INC., ET AL
FINAL PLAT
CULBERSON COUNTY, TEXAS
TRACT NO. 01

SCALE: 1" = 100'	CHECKED BY: C. GRAY	APPROVED BY: FRANS
PLOT DATE: 12-02-2020	DRAWN BY: ALP	SHEET NO.: 2 OF 2

G:\852-7 (NORTH REEVES)\1 - 8527SV0200+ PROJECTS\8527SV0445 HSS 113-16 WC PIPELINE PRELIMINARY\BPX PIPELINE OWNER PLATS.DWG 12/2/2020 12:51:02 PM AP1232

File No. MF113061

County

Surface Damage Pmt

Date Filed: 6/21/2024

George P. Bush, Commissioner

By VR