

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SEP 27 2018

FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NOG14021839

6. If Indian, Allottee or Tribe Name  
EASTERN NAVAJO

**SUBMIT IN TRIPLICATE** – Other instructions on page 2.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit of CA/Agreement, Name and/or No. NMNM132981A
2. Name of Operator Encana Oil & Gas (USA) Inc.		8. Well Name and No. NAGEEZI UNIT 507H
3a. Address 370 17th Street, Suite 1700, Denver CO 80202	3b. Phone No. (include area code) 505-599-2400	9. API Well No. 30-045-35855
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Surface: NENE / 260' FNL / 309' FEL / LAT 36.248043 / LONG -107.786759		10. Field and Pool or Exploratory Area MANCOS
		11. County or Parish, State SAN JUAN, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>NOTICE OF</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>INSTALLATION OF</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	<u>GAS LIFT</u>

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Encana Oil & Gas (USA) Inc. is giving notification of installation of gas lift at the Nageezi Unit 507H well. Attached hereto is a schematic of the well pad with the gas lift and gas allocation procedure.

NMOCB  
OCT 22 2018  
DISTRICT III

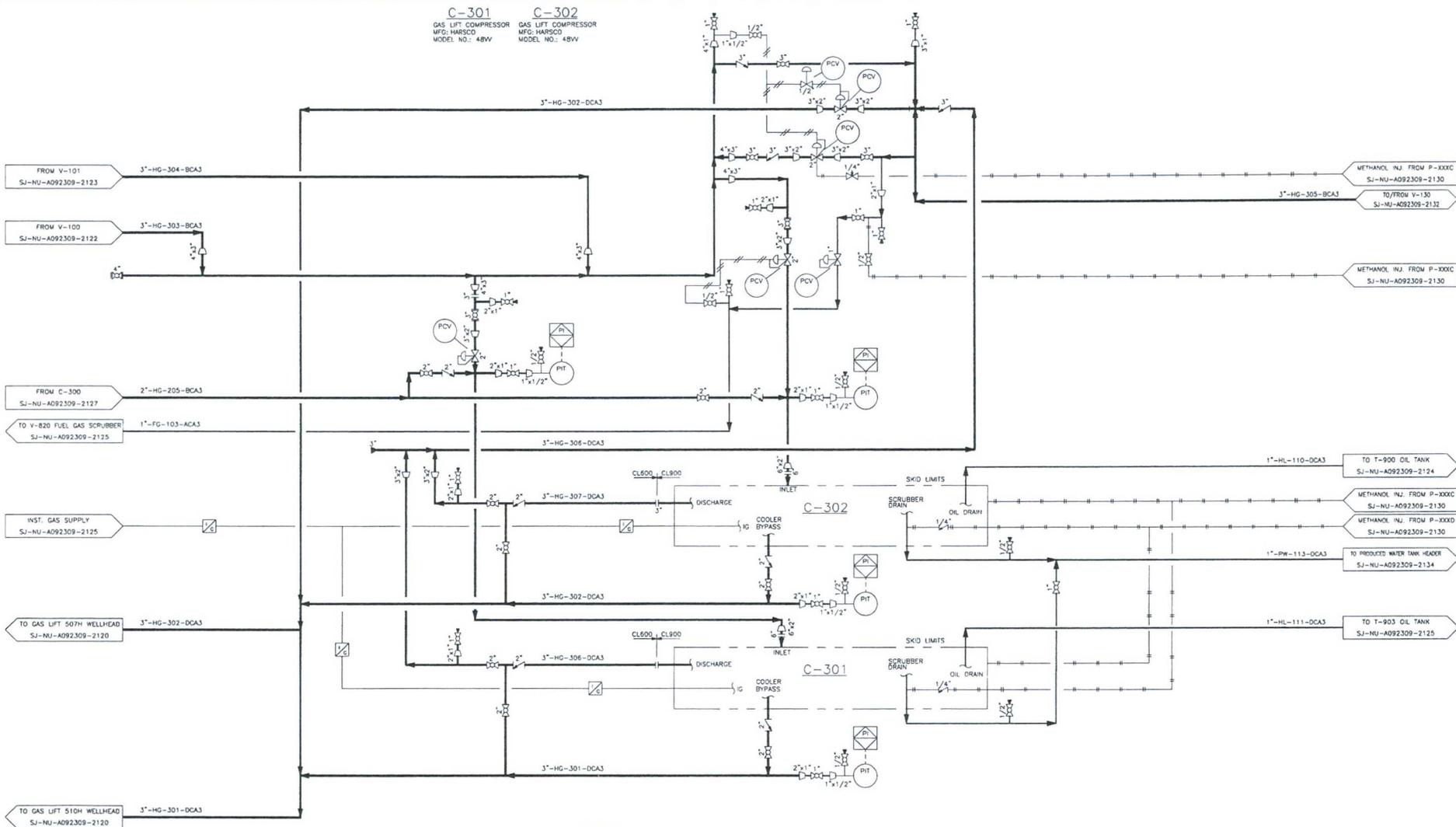
14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Shaw-Marie N. Ford		Title Production Technician
Signature 		Date 09/27/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by 	Title PF	Date 10/16/18
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office FTO		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



A/E  
18194688  
18194699

REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	A/E	EPCM Co.	EPCM No.	APPD.	ISSUE STAGE	DATE	BY	CHKD.	APPD.	PERMIT STAMP	ENGINEER'S STAMP
-	-	A1	2018-04-19	ISSUED FOR REVIEW	SJ-NU-A092309	SEE ABOVE	PSI, LLC	-	-	Prelim. (A)	2018-04-19	NAS	SBW	-	-	-
-	-	C1	2018-05-17	ISSUED FOR CONSTRUCTION	SJ-NU-A092309	SEE ABOVE	PSI, LLC	-	-	Final (B)	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	Execut. (C)	2018-05-17	CSB	SBW	-	-	-
-	-	-	-	-	-	-	-	-	-	As-Built (D)	-	-	-	-	-	-

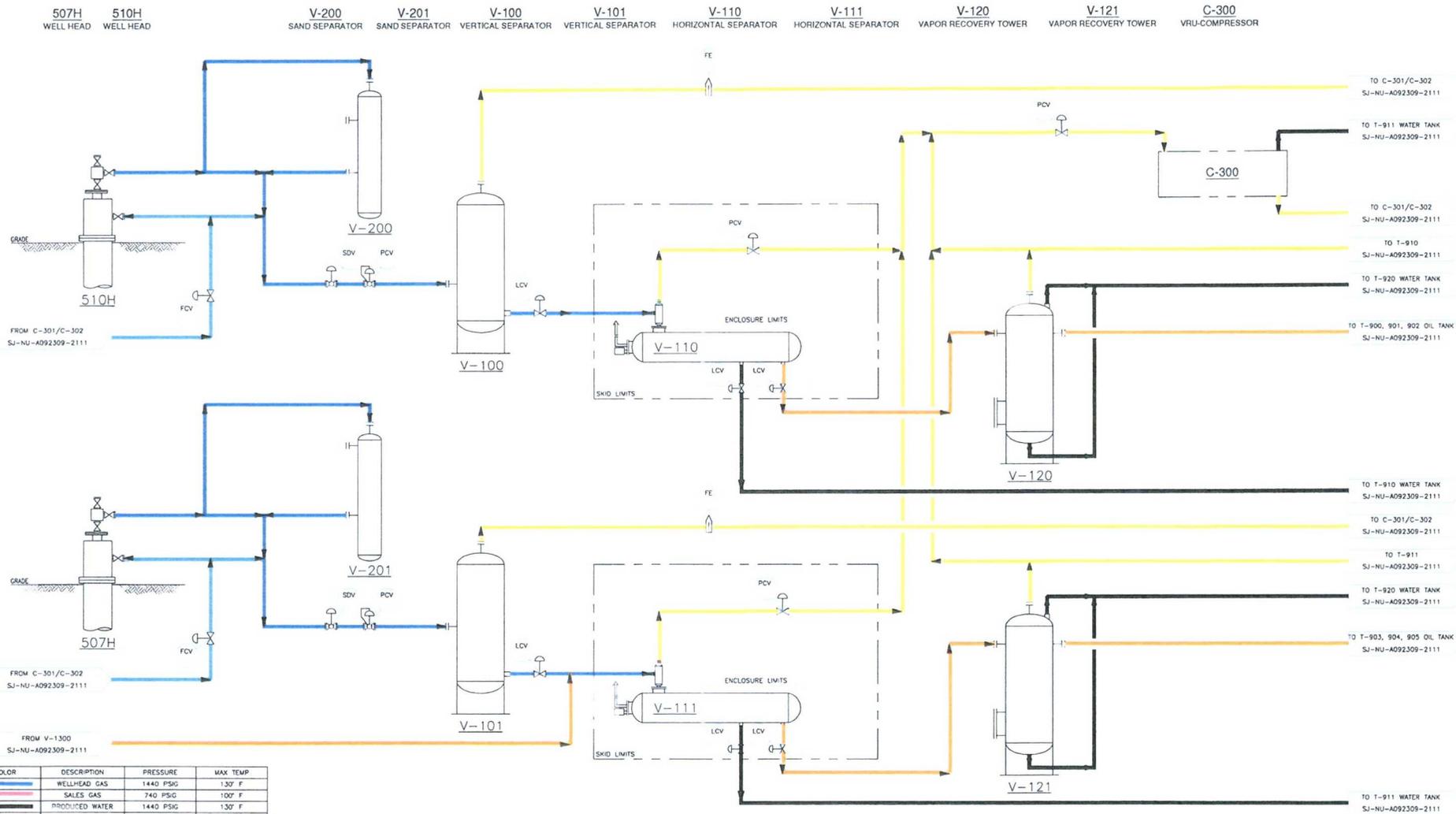
**CAUTION : READ BEFORE EXCAVATION**  
ALL EXCAVATIONS MUST BE CARRIED OUT AS PER "ENCANA'S GROUND DISTURBANCE PRACTICE"

PROJECT: NAGEEZI UNIT A09-2309  
 LOCATION: SEC 9, TOWNSHIP 23 N, RANGE 9 W  
 FACILITY: CENTRAL PROCESSING FACILITY  
 AREA: SEC 9, TOWNSHIP 23N, RANGE 9 W  
 PROJECT: NTS (A1 Site) | CLASS: TBD

**PSI**  
 PIPING & INSTRUMENTATION DIAGRAM  
 GAS LIFT COMPRESSOR #1 (C-301) & #2 (C-302)

CLASS / FILE NO.  
**SAN JUAN** / A / SJ-NU-A092309-2131

Date and Time Saved: 2018-05-03 9:10 AM



COLOR	DESCRIPTION	PRESSURE	MAX TEMP
Blue	WELLHEAD GAS	1440 PSIG	130° F
Pink	SALES GAS	740 PSIG	100° F
Black	PRODUCED WATER	1440 PSIG	130° F
Orange	OIL/DRAINS	1440 PSIG	130° F
Green	VENT GAS	5 PSIG	150° F
Yellow	LOW PRESSURE GAS	740 PSIG	130° F
Light Blue	GAS LIFT	1440 PSIG	130° F

NO.	DATE	DESCRIPTION
18184691		
18184690		

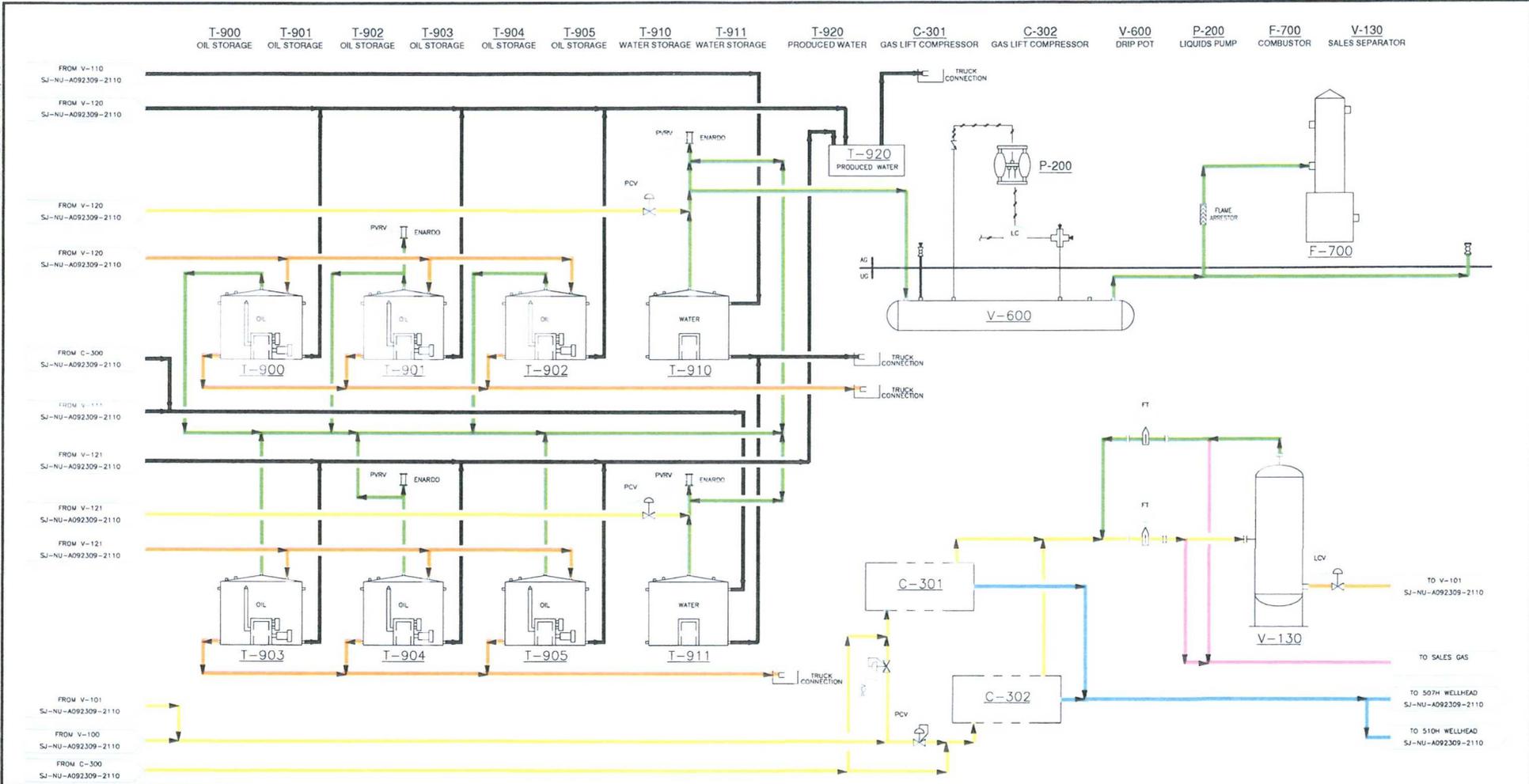
REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	A/E	EPCM CO.	EPCM NO.	APPR.	ISSUE STAGE	DATE	BY	CHKD.	APPR.	PERMIT STAMP	ENGINEER'S STAMP
PROCESS FLOW DIAGRAM	SJ-NU-A092309-2111	A1	2018-04-19	ISSUED FOR REVIEW	SJ-NU-A092309	SEE ABOVE	PSL, LLC			Revise (A)	2018-04-19	HAS	SM			
		C1	2018-05-17	ISSUED FOR CONSTRUCTION	SJ-NU-A092309	SEE ABOVE	PSL, LLC			Const. (C)	2018-05-17	CSB	SM			
										As-built (D)						

**CAUTION : READ BEFORE EXCAVATION**  
 ALL EXCAVATIONS MUST BE CARRIED OUT AS PER "ENCANA'S GROUND DISTURBANCE PRACTICE"

PROJECT: NAGEEZI UNIT A09-2309 LOCATION: SEC 9, TOWNSHIP 23N, RANGE 9W FACILITY: CENTRAL PROCESSING FACILITY AREA: SEC 9, TOWNSHIP 23N, RANGE 9W SCALE: NTS (A1 Size) DATE: TBD
<b>PIPELINE STRATEGIES &amp; INTEGRITY</b> TITLE: PROCESS FLOW DIAGRAM AREA: 2 WELL PAD REGION: SAN JUAN SHEET: A PROJECT NO: SJ-NU-A092309-2110

PLOTTED: 5/15/2018 8:10:24 AM BY: CHRIS BOBBERON  
 LAST SAVED: 5/2/2018 9:10:23 AM BY: GILCHRIST

Drawings Must Comply with Encana Drafting Standards (ECA-DDM-S-01)



COLOR	DESCRIPTION	PRESSURE	MAX TEMP
Blue	WELLHEAD GAS	1440 PSIG	130° F
Pink	SALES GAS	740 PSIG	100° F
Black	PRODUCED WATER	1440 PSIG	130° F
Orange	OIL/DRAINS	1440 PSIG	130° F
Green	VENT GAS	5 PSIG	150° F
Yellow	LOW PRESSURE GAS	740 PSIG	130° F
Light Blue	GAS LIFT	1440 PSIG	130° F

A/E	18184668
	18184699

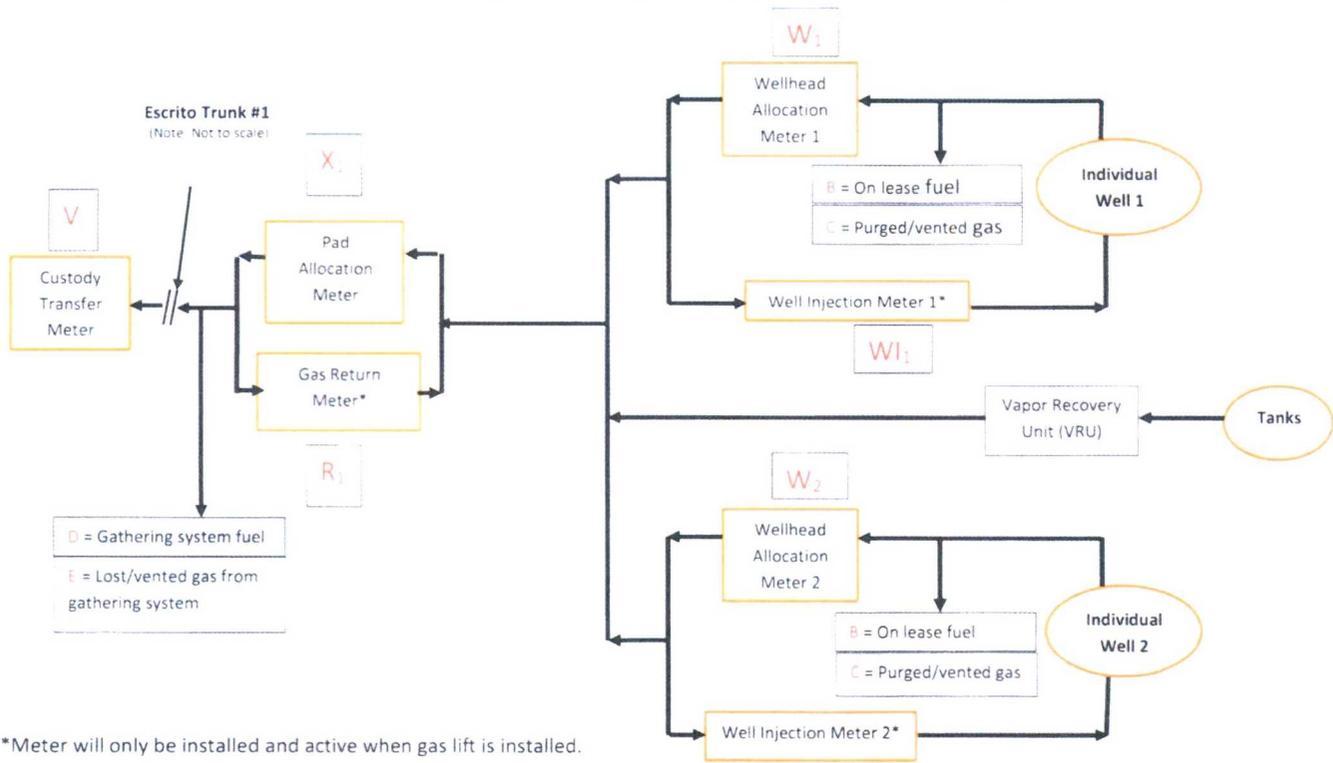
REFERENCE DRAWINGS	DWG. NO.	NO.	DATE	PROJECT DESCRIPTION	PROJ.	A/E	EPCM Co.	EPCM No.	APPD.
PROCESS FLOW DIAGRAM	SJ-NU-A092309-2110	A1	2018-04-19	ISSUED FOR REVIEW	SJ-NU-A092309	SEE ABOVE	PSI, LLC	-	-
		-	-	-	SJ-NU-A092309	SEE ABOVE	PSI, LLC	-	-

REV. NUMBER	DATE	BY	CHKD.	APPD.	PERMIT STAMP	ENGINEER'S STAMP
1	2018-04-19	HAS	SEM			
2	2018-05-11	CSB	SEM			

**CAUTION : READ BEFORE EXCAVATION**  
 ALL EXCAVATIONS MUST BE CARRIED OUT AS PER "ENCANA'S GROUND DISTURBANCE PRACTICE"

PROJECT: NAGEEZI UNIT A09-2309 LOCATION: SEC 9, TOWNSHIP 23N, RANGE 9W OPERATOR: CENTRAL PROCESSING FACILITY SITE: SEC 9, TOWNSHIP 23N, RANGE 9W SCALE: NTS (At Site)    DATE: TBD
<b>PIPELINE STRATEGIES &amp; INTEGRITY</b> FILE: PROCESS FLOW DIAGRAM 2 WELL PAD
REV: <b>SAN JUAN</b> CLASS FILE NO: <b>A</b> SHEET: <b>SJ-NU-A092309-2111</b>

**Gas Measurement Allocation Procedure for Multi-Well Pads**



\*Meter will only be installed and active when gas lift is installed.

Attachment No. 5  
Encana Oil & Gas (USA) Inc.  
Escrito Trunk #1 Gathering System  
San Juan County, New Mexico

WI<sub>2</sub>

**Base Data:**

V = Gas Volume (MCF) from Custody Transfer Meter during allocation period (Enterprise Field Services, LLC)  
X<sub>x</sub> = Gas Volume (MCF) from Pad Allocation Meter during allocation period. (Encana)  
R<sub>x</sub> = Gas Volume (MCF) from Gas Return Meter at Well Pad (Encana)\*  
(X<sub>x</sub> - R<sub>x</sub>) = Gas Volume (MCF) for total Well Pad Production (Encana)  
W<sub>x</sub> = Gas Volume (MCF) from Wellhead Allocation Meter at individual wells during allocation period. (Encana)  
WI<sub>x</sub> = Gas Volume (MCF) from Well Injection Meter at individual wells during allocation period. (Encana)\*  
Y = Heating Value (BTU/scf) from Custody Transfer Meter during allocation period. (Enterprise Field Services, LLC)  
Z = Heating Value (BTU/scf) from individual Wellhead Allocation Meter and Well Injection Meter. (Encana)

Allocation Period is typically a calendar month and will be the same for all Well Pads and individual wells.

**Allocate the off lease Custody Transfer volume back to the well pad**

$$A_{AL} = \text{Well pad allocated volume (MCF)} = [(X_1 - R_1) / ((X_1 - R_1) + (X_2 - R_2) + \dots + (X_n - R_n))] * (V) + D + E$$

**Distribute (allocate) the allocated well pad production, (A<sub>AL</sub>) back to each well on the pad**

Gas production (MCF) allocated back to the individual wells on a Well Pad is calculated using the formula:

$$AL\ Net_n = [(W_1 - WI_1) / ((W_1 - WI_1) + (W_2 - WI_2) + \dots + (W_n - WI_n))] * A_{AL}$$

**Determine the final allocated production for each well on the pad**

$$\text{Final allocated individual well production (MCF)} = AL\ Net_n + B_n + C_n$$

B<sub>n</sub> = On lease fuel usage attributed to an individual well, MCF. Determined from equipment specification and operating conditions. This includes, but is not limited to, compression, vapor recovery unit (VRU) compression, burners, and pump jacks.

Attachment No. 5  
Encana Oil & Gas (USA) Inc.  
Escrito Trunk #1 Gathering System  
San Juan County, New Mexico

$C_n$  = Lost and/or vented gas attributed to an individual well from well and/or lease equipment, MCF. Calculated using equipment and piping specifications and operating pressures.

$D$  = Allocated fuel from gathering system equipment, MCF. The total fuel required to operate gathering system equipment will be allocated to the Well Pads benefiting from the equipment using allocation factors determined by  $[(X_1-R_1)/((X_1-R_1)+(X_2-R_2)+(X_n-R_n))]$  and for individual wells using allocation factors determined by  $[(W_1-W_{1n})/((W_1-W_{1n})+(W_2-W_{2n})+(W_n-W_{1n}))]$ .

$E$  = Allocated volume of gas lost and/or vented from the gathering system, gathering system equipment, condensate collection, and water collection in MCF. The total volume will be determined using industry accepted procedures the time of the loss. The total volumes lost and/or vented will be allocated to the Well Pads affected using factors determined by  $[(X_1-R_1)/((X_1-R_1)+(X_2-R_2)+(X_n-R_n))]$ , and for individual wells using factors determined by  $[(W_1-W_{1n})/((W_1-W_{1n})+(W_2-W_{2n})+(W_n-W_{1n}))]$ .

**Individual Well BTU's** =  $[\{((W_n-W_{1n}) * Z_n) / \{SUM((W_n-W_{1n}) * Z_n)\}\} * (V * Y) * 1000]$

Individual well gas heating values to be determined in accordance with BLM regulations.