

Attachment to the Site Security Diagram - Dunn #9,10,11 Tank Battery

Epic Energy, LLC.
Dunn #9,10,11 Tank Battery

Lease# SF-078272 NE of NE S3-T23N-R7W (36.259439°,-107.556280°) Rio Arriba County, New Mexico

Attachment to the Site Security Diagram - Dunn #9,10,11 Tank Battery Production phase:

All drain valves (DV1)(DV2) sealed closed.

All sales valves (SV1)(SV2) sealed closed.

Fill Valve (FV1)or(FV2) open

Sales phase:

The tank from which the sales are being made will be isolated by sealing closed the drain valve (DV1)and(DV2) and fill valve (FV1)or(FV2) and removing and recording the seal from (SV1)or(SV2) during the sale of the specified tank.

The sales valve will be sealed and recorded immediately following the sale.

Drain phase:

The tank from which the drain is being made will be isolated by sealing closed the sales valve (SV1)or(SV2) and fill valve (FV1)or(FV2) during the water drain.

Fuelgas Usage Calculations

Pump Unit Engine Table

Engine Type	HP	MCF/D USAGE	
C46 ARROW	8.8	2	(from Arrow)
C-66 ARROW	12.3	2.5	(from Arrow)
C-96 ARROW	18.8	3.0	(from Arrow)
Electric	NA	0	
KUBOTA 1600	16	2	
KUBOTA 3200	32	3.81	
KUBOTA (DG-972-E2)	25	2.5	
KOHLER 27 hp	25	3	
KOHLER 18 hp	16	2	
AJAX DP60 (9 1/2 x 12)	60	7.1	
AJAX E42 (8 1/2 x 10)	42	5	
AJAX EA30 (7 1/2 x 8)	30	3.6	
AJAX EA15	15	2	
AJAX EA22 (6 1/2 x 8)	22	2.6	
None	NA	0	

Horsepower Engine Table

Engine Type	HP (100% Load)	HP (80% Load)	Fuel Consumption	
GS-10 - 80hp	80	64	8319	(Estimated)
Twin Stars BOSS GM3.0L	32	26	8500	(Estimated)
Gemni G26	26	21	8000	
Twin Stars 5.9 Cummins	49	39	8725	
Twin Stars 5.9 Cummins	84	67	8056	
Twin Stars 5.9E Cummins	84	67	8422	
GS12 (8.3 nat asp cummins)	118	94	8553	
GS17 (8.3 Turbo Cummins)	175	140	7560	(Estimated)
GS24 (855 Turbo)	281	225	8617	(Estimated)
496 and 454 Chevy - 110	110	88	8500	(Estimated)
460 Ford	85	68	8000	
300 6 cyl Ford	65	52	8650	
8.3 Cummins (natural aspirated)	118	94	8553	
8.3E Cummins (natural aspirated)	118	94	8933	
8.3 Cummins (turbo charged)	175	140	7560	
855 Cummins (turbo)	281	225	8617	
KTA19GC	420	336	7961	
KTA19GC-SLB	420	336	8172	
FLUID COMP GM-350	80	64	8319	
3304 CATERPILLAR	95	76	7778	
VRG-330 ARROW/WAKESHAU	68	54	8038	(Estimated)
KAWASAKI(Poquito) - 750	15	12	8350	(Estimated)
KUBOTA (DG-972-E2)	23.6	19	8000	
VRG-220 ARROW/WAKESHAU	52	42	8250	
KOHLER - 18hp	18	14	8500	(Estimated)
KOHLER - 27hp	27	22	8500	(Estimated)
Electric			0	
None			0	I

REFERENCES:		
De-Rating for Elevation Change	2.44%	Turbo Charged Engines
(every 1000' above 2000' elevation)	3.66%	Naturally Aspirated
6000 BTU is avg value to use for Pilot Calcu	ilations for vessi	010
0000 BTO IS avg value to use for Filot Calcu	ilations for vessi	
How to Use: All Blue Text Cells require so		
	me kind of manua	l data entry, either

Lease Name: Epic Energy, LLC.

Dunn #9,10,11 Tank Battery

Lease# SF-078272

NE of NE S3-T23N-R7W (36.259439°,-107.556280°) Rio Arriba County, New Mexico

Fuel gas Calculations:	BTU / scf	% Used	
HV from Gas Analysis	1381	Burner	10
Elevation	7382	Pilot	100

^{*}Fuel gas usage split between locations going into tank battery

Vessels

	Burner BTU Rating	mscf/day	Pilot BTU Rating	mscf/day	Total
Separator	500000	0.9	6000	0.10	0.97
Tank #1		0.0		0.00	0.00
Tank #2		0.0		0.00	0.00
Tank #3		0.0		0.00	0.00
Tank #4		0.0		0.00	0.00
Tank #5		0.0		0.00	0.00
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Total MSCF/DAY	0.87	0.10	0.97

mscf/day

Engines

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Compressor Engine	None
Pump Unit Engine	None
HP Rating @ 80% Load (D)	
Fuel Consumption (E)	0
Pump Jack mcf/day (B)	0.0
De-Rating % for Elevation	0.0366
De-Rated HP @ 80% Load	0.0

Total MSCF/DAY	0.00

Other Use

House Tap	0	
Chemical Injection Pumps	0	
Auxillary Equipment	0	combuster

Total Fuel Gas to Report	0.97	mscf/day
		•

^{*}Fuel gas usage split between locations going into tank battery

Fuel gas calculations methodology:

Fuel gas is calcualted by using the BTU rating of the gas (wet rating) that has been determined

via gas analysis, the elevation of the well (due to derating of HP), separator burner rating,

natural gas engines located on location with the manufacturer HP rating at 80% load which is

the maximum recommended continuous run rating HP from the manufacturers.

Main Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24)/1000)*(Time % factor/100) = Gas used by main burner

Pilot Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24)/1000)*(Time % factor/100) = Gas used by main burner

Pump unit engine - fuel usage per manufacturer specs if available, if not, calculated per HP calculations comparabel to compressor calcs

Compressor fuel usage -

calculated by derating engine for the elevation - (HP Rating @ 80% Load)*(1-((Elevation-2000)/1000)*(Elevation derating factor for naturally aspirated or turbo charged engines) then using the following formula - ((Engine fuel usage from manufacturer/BTU from gas analysis)*Elevation derated HP)*24)/1000

Fuel usage for all equipment is then summed for the site.

Fuel gas calculations methodology:

Fuel gas is calcualted by using the BTU rating of the gas (wet rating) that has been determined via gas analysis, the elevation of the well (due to derating of HP), separator burner rating, natural gas engines located on location with the manufacturer HP rating at 80% load which is the maximum recommended continuous run rating HP from the manufacturers.

Main Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24)/1000)*(Time % factor/100) = Gas used by main burner Pilot Burner gas usage calculation - (((burner BTU-hr/Actual BTU)*24)/1000)*(Time % factor/100) = Gas used by main burner Pump unit engine - fuel usage per manufacturer specs if available, if not, calculated per HP calculations comparabel to compressor calcs Compressor fuel usage - calculated by derating engine for the elevation -

(HP Rating @ 80% Load)*(1-((Elevation-2000)/1000)*(Elevation derating factor for naturally aspirated or turbo charged engines) then using the following formula - ((Engine fuel usage from manufacturer/BTU from gas analysis)*Elevation derated HP)*24)/1000 Fuel usage for all equipment is then summed for the site.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 77216

QUESTIONS

Operator:	OGRID:
EPIC ENERGY, L.L.C.	372834
332 Road 3100	Action Number:
Aztec, NM 87410	77216
	Action Type:
	[UF-FAC] TB Registration (TB-REG)

QUESTIONS

Facility Details		
Please answer all of the questions in this group.		
Name of the facility	Dunn 9, 10, 11, TB	
Date the facility was opened	Not answered.	
Depth to ground water, if known	Not answered.	

Verification		
Does the operator have other facilities with a matching name	No	
Are there other facilites located within approximately 50 feet	No	

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ACKNOWLEDGMENTS

⋉	I certify that I am authorized to register a facility on behalf of the responsible operator.
V	I certify that I will notify OCD of any changes of ownership for this facility.
✓	I certify that I will notify OCD when this facility is closed.