

Appendix D Noise Report

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NOISE STUDY REPORT

BIDR, LLC
BIDR Exploratory Well

**ADJACENT TO MCDONALD ANTICLINE
AND CARNEROS CREEK OIL FIELDS
KERN COUNTY, CALIFORNIA
APN# 085-170-09**

December 1, 2023

Prepared for:

BIDR, LLC

Prepared By:

EnviroTech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

NOISE STUDY REPORT

BIDR, LLC

EXPLORATORY WELL

35.465456628 LATITUDE, -119.836119926 LONGITUDE

APN# 085-170-09

CEQA INITIAL STUDY

DECEMBER 2023

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SECTION 1 – INTRODUCTION

EnviroTech Consultants, Inc. (EnviroTech) has prepared this Noise Study Report on behalf of BIDR, LLC, as required for the California Environmental Quality Act Initial Study for an exploratory well.

Attachment 1 provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Attachment 2 provides typical A-weighted sound levels for common noise sources.

SECTION 2 – STUDY AND RESULTS

2.1 Scope

This Noise Study is to identify potential increased noise level from construction and drilling activities at sensitive receptors and, if necessary, noise abatement to mitigate impacts. EnviroTech conducted an analysis of the noise impacts utilizing the Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide and US EPA Protective Noise Levels. Noise modeling was completed using the Federal Highway Administration's Roadway Construction Noise Model (RCNM).

2.2 Location

The well is located on Assessor's Parcel Number (APN) 085-170-09 in an active (A) agricultural area that includes one sensitive receptor within 8,000 feet of the project location. The well is located approximately 8 miles west of the intersection of Highway 33 and Seventh Standard Road. A residence is located approximately 7,700 feet south of the well. This is the only sensitive receptor within 8,000 feet of the project location. The locations of the project site and receptor are provided in Attachment 3.

2.3 Noise Study

BIDR proposes to perform construction activities to prepare a well pad, drill a well, and build a production facility at the project site. Because the sensitive receptors are located within 7,900 feet of the project site additional noise analysis is required.

Potential noise impacts were modeled using a 7,700-foot distance; assuming ambient noise levels of 50 dBA (7:00 AM to 10:00 PM) and nighttime noise of 40 dBA (10:00 PM to 7:00 AM) (consistent with rural environments [USEPA 1978]) corresponding to a Day-Night Average Sound Level (Ldn) of 50 dBA (i.e., equivalent sound level for a 24-hour period with an additional 10 dBA imposed on the equivalent sound levels for night time hours of 10:00 p.m. to 7 :00 a.m.); and the Federal Transit Authority's construction noise methodology. Accordingly, Table 1 lists equipment expected to be used during each phase along

with the typical expected equipment noise levels and usage factors adapted from the FHWA Roadway Construction Noise Model User's Guide. The User's Guide provides the most recent comprehensive assessment of noise levels from construction equipment. Considering standard attenuation of noise with increased distance from a noise source, the noise generated during each phase was propagated out to 7,700 feet to estimate the maximum noise levels resulting from the proposed Project. The equipment and closest receptor were entered in the RCNM software to obtain the results summarized in Table 1 for each phase. The detailed noise analysis results of each phase is included in Attachment 4.

Table 1

Project Activity	Equipment	Quantity	Daytime Operating Hours	Nighttime Operating Hours	Acoustical Usage Factor (%) ¹	Typical Equipment L _{max} (dBA) at 50 feet from Source ¹	Calculated L _{eq} (dBA)	Calculated L _{dn} (dBA)
Grading	Dozer	1	8.3	0	40	81.7	33.9	
	Grader	1	8.3	0	40	83.4	35.7	
	Excavator	1	8.3	0	40	80.7	33.0	
	Loader	1	8.3	0	40	79.1	31.4	
	Drill	1	1.7	0	20	84.4	33.6	
	Pump	1	3.3	0	50	80.9	34.2	
Noise at 7,700 feet							41.6	38.2
Rig Setup	Forklift	2	10	0	40	79.1	31.4	
	Crane	1	10	0	16	80.6	28.8	
	Welder	2	10	0	40	74.0	26.3	
Noise at 7,700 feet							36.4	33.0
Well Drilling Operations	Drill	1	15	9	100	84.4	40.6	
	Pump	2	15	9	100	80.9	37.1	
	Generator	6	15	9	100	80.6	36.8	
	Light Tower	6	3	9	41	80.6	33.8	
	Forklift	1	15	9	40	79.1	31.4	
	Backhoe	1	15	9	40	77.6	29.8	
	Welder	2	15	9	40	74.0	26.3	
	Crane	1	15	9	16	80.6	28.8	
Noise at 7,700 feet							48.4	54.7
Rig Decommission	Forklift	1	10	0	40	79.1	31.4	
	Crane	1	10	0	16	80.6	28.8	
	Welder	2	10	0	40	74.0	26.3	
Noise at 7,700 feet							34.7	31.3

Project Activity	Equipment	Quantity	Daytime Operating Hours	Nighttime Operating Hours	Acoustical Usage Factor (%) ¹	Typical Equipment L _{max} (dBA) at 50 feet from Source ¹	Calculated L _{eq} (dBA)	Calculated L _{dn} (dBA)
Facility Construction	Crane	1	4	0	16	80.6	28.8	
	Forklift	2	6	0	40	79.1	31.4	
	Backhoe	2	8	0	40	77.6	29.8	
	Welder	2	8	0	40	74.0	26.3	
Noise at 7,700 feet							38.0	34.6

Notes:

¹ Adapted from FHWA Roadway Construction Noise Model User's Guide (FHWA 2006)

2.4 Results

The total noise levels were then compared to the maximum allowable increased noise levels at the sensitive receptor to determine whether the noise impacts from the project were significant and would require further mitigation. For locations where the ambient level is below 65 dB, noise levels from construction activities may not increase the existing ambient level at the sensitive receptor by more than 5dB and may not exceed 65 dB at the sensitive receptor. For locations where the ambient level is at or in excess of 65 dB, noise levels from construction activities may not increase the existing ambient level at the sensitive receptor by more than 1 dB.

As shown in Table 1, the Project would be in compliance with the Kern County General Plan noise level standard and during construction would be below 55 dBA Ldn at 7,700 feet from any individual Project component. Thus, the proposed Project would not increase noise levels by more than 5 dBA and the proposed Project would comply with the Kern County General Plan noise level standard at the location of the nearest sensitive receptor.

2.5 Conclusions

The mitigation measure states that noise levels cannot increase by more than 5 dB nor exceed 65 dB at the sensitive receptor. Based on the analysis conducted, the project noise levels will not exceed these limits. Therefore, no construction mitigation measures are required.

Attachment 1 – Acoustical Terminology

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL:	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
CNEL:	Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
DECIBEL, dB:	A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
DNL/L_{dn}:	Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.
L_{eq}:	Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L _{eq} is typically computed over 1, 8 and 24-hour sample periods.
NOTE:	The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L _{eq} represents the average noise exposure for a shorter time period, typically one hour.
L_{max}:	The maximum noise level recorded during a noise event.
L_n:	The sound level exceeded "n" percent of the time during a sample interval (L ₉₀ , L ₅₀ , L ₁₀ , etc.). For example, L ₁₀ equals the level exceeded 10 percent of the time.

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS:

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

NOISE LEVEL REDUCTION (NLR):

The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL:

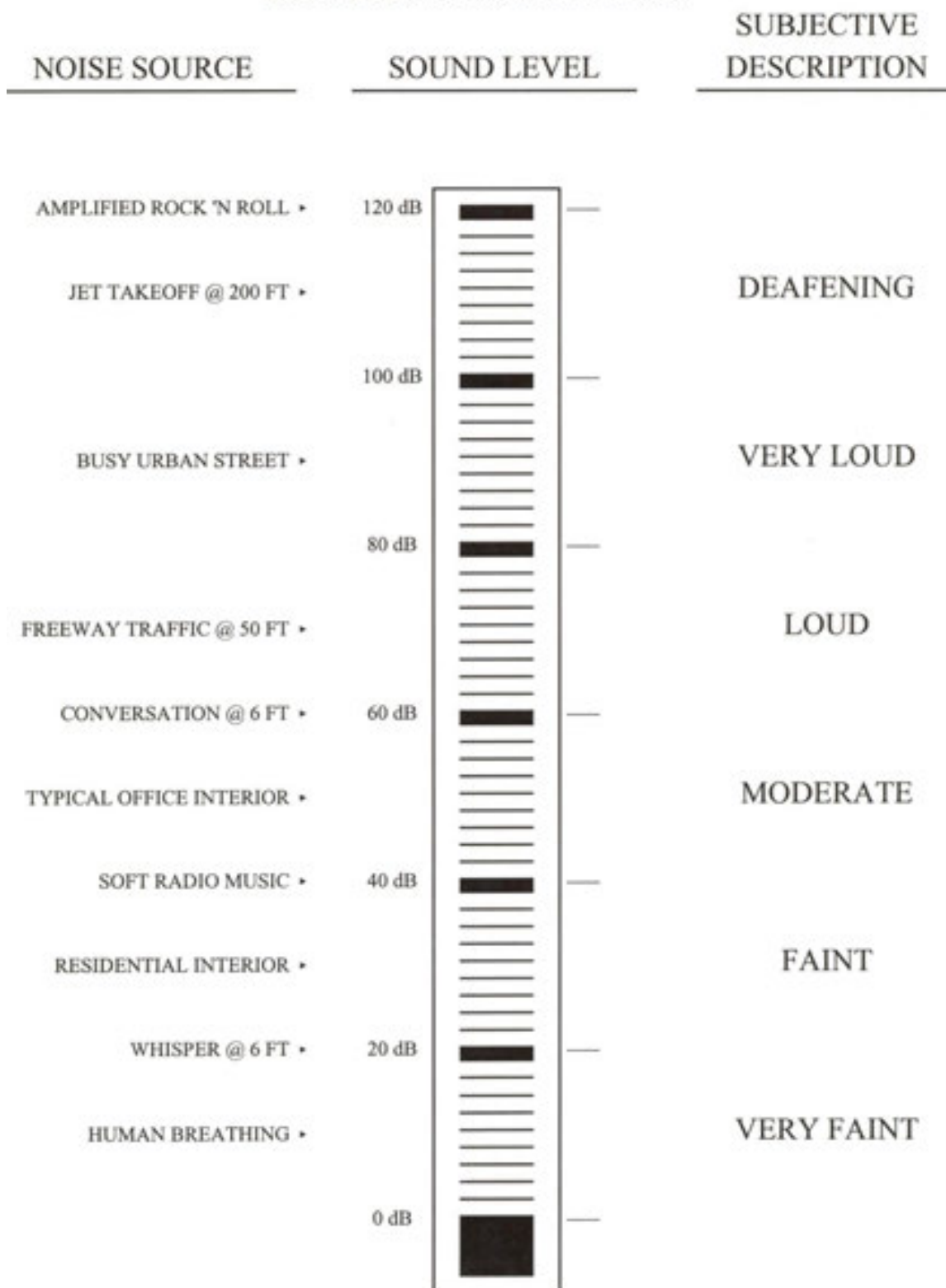
The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC):

The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

Attachment 2 – Examples of Sound Levels

EXAMPLES OF SOUND LEVELS



Attachment 3 – Site Map

Legend

- 7,700 Feet
- Proposed Well Location
- Sensitive Receptor - Residence

Prop Well Location

7,700 Feet

Sensitive Receptor - Residence



Attachment 4 – RCNM Noise Modeling Results

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 01/11/2024
 Case Description: Grading

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ranch House	Residential	50.0	50.0	40.0

Description	Equipment		Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
	Impact Device	Usage (%)				
Dozer	No	40		81.7	7700.0	0.0
Gradall	No	40		83.4	7700.0	0.0
Excavator	No	40		80.7	7700.0	0.0
Front End Loader	No	40		79.1	7700.0	0.0
Pumps	No	50		80.9	7700.0	0.0
Auger Drill Rig	No	20		84.4	7700.0	0.0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	37.9	33.9	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Gradall	39.6	35.7	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Excavator	37.0	33.0	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Front End Loader	35.4	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Pumps	37.2	34.2	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Auger Drill Rig	40.6	33.6	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Total	40.6	41.6	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

BIDR, LLC Exploratory Well - Grading Phase

Time	Leq	Lmax		
12:00 AM	0.0	0.0		
1:00 AM	0.0	0.0		
2:00 AM	0.0	0.0		
3:00 AM	0.0	0.0		
4:00 AM	0.0	0.0		
5:00 AM	0.0	0.0		
6:00 AM	0.0	0.0		
7:00 AM	41.6	40.6		
8:00 AM	41.6	40.6		
9:00 AM	41.6	40.6		
10:00 AM	41.6	40.6		
11:00 AM	41.6	40.6		
12:00 PM	41.6	40.6		
1:00 PM	41.6	40.6		
2:00 PM	41.6	40.6		
3:00 PM	41.6	40.6		
4:00 PM	41.6	40.6		
5:00 PM	41.6	40.6		
6:00 PM	0.0	0.0		
7:00 PM	0.0	0.0		
8:00 PM	0.0	0.0		
9:00 PM	0.0	0.0		
10:00 PM	0.0	0.0		
11:00 PM	0.0	0.0	Ldn	38.2

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 01/11/2024
 Case Description: Rig Setup

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ranch House	Residential	50.0	50.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	Lmax	Leq	Day		Evening		Night		Day		Evening		Night	
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	36.8	28.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Total	36.8	36.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

BIDR, LLC Exploratory Well - Rig Setup Phase

Time	Leq	Lmax		
12:00 AM	0.0	0.0		
1:00 AM	0.0	0.0		
2:00 AM	0.0	0.0		
3:00 AM	0.0	0.0		
4:00 AM	0.0	0.0		
5:00 AM	0.0	0.0		
6:00 AM	0.0	0.0		
7:00 AM	36.4	36.8		
8:00 AM	36.4	36.8		
9:00 AM	36.4	36.8		
10:00 AM	36.4	36.8		
11:00 AM	36.4	36.8		
12:00 PM	36.4	36.8		
1:00 PM	36.4	36.8		
2:00 PM	36.4	36.8		
3:00 PM	36.4	36.8		
4:00 PM	36.4	36.8		
5:00 PM	36.4	36.8		
6:00 PM	0.0	36.8		
7:00 PM	0.0	36.8		
8:00 PM	0.0	36.8		
9:00 PM	0.0	36.8		
10:00 PM	0.0	36.8		
11:00 PM	0.0	36.8	Ldn	33.0

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 01/11/2024
 Case Description: Well Drilling

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ranch House	Residential	50.0	50.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drill Rig	No	100		84.4	7700.0	0.0
Mud Pump	No	100		80.9	7700.0	0.0
Mud Pump	No	100		80.9	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Rig Generators	No	100		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Light Towers	No	50		80.6	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0
Backhoe	No	40		77.6	7700.0	0.0
Crane	No	16		80.6	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0

Results

Equipment	Noise Limits (dBA)								Noise Limit Exceedance (dBA)					
	Calculated (dBA)		Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Drill Rig	40.6	40.6	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Mud Pump	37.1	37.1	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Mud Pump	37.1	37.1	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Rig Generators	36.8	36.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Light Towers	36.8	33.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Backhoe	33.8	29.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Crane	36.8	28.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Total	40.6	48.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

BIDR, LLC Exploratory Well - Well Drilling Phase

Time	Leq	Lmax		
12:00 AM	48.4	40.6		
1:00 AM	48.4	40.6		
2:00 AM	48.4	40.6		
3:00 AM	48.4	40.6		
4:00 AM	48.4	40.6		
5:00 AM	48.4	40.6		
6:00 AM	48.4	40.6		
7:00 AM	48.4	40.6		
8:00 AM	48.4	40.6		
9:00 AM	48.4	40.6		
10:00 AM	48.4	40.6		
11:00 AM	48.4	40.6		
12:00 PM	48.4	40.6		
1:00 PM	48.4	40.6		
2:00 PM	48.4	40.6		
3:00 PM	48.4	40.6		
4:00 PM	48.4	40.6		
5:00 PM	48.4	40.6		
6:00 PM	48.4	40.6		
7:00 PM	48.4	40.6		
8:00 PM	48.4	40.6		
9:00 PM	48.4	40.6		
10:00 PM	48.4	40.6		
11:00 PM	48.4	40.6	Ldn	54.8

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 01/11/2024
 Case Description: Rig Decommission

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ranch House	Residential	50.0	50.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec	Actual	Receptor Distance (feet)	Estimated Shielding (dBA)
			Lmax (dBA)	Lmax (dBA)		
Crane	No	16		80.6	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	36.8	28.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Total	36.8	34.7	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

BIDR, LLC Exploratory Well - Rig Decommission Phase

Time	Leq	Lmax		
12:00 AM	0.0	0.0		
1:00 AM	0.0	0.0		
2:00 AM	0.0	0.0		
3:00 AM	0.0	0.0		
4:00 AM	0.0	0.0		
5:00 AM	0.0	0.0		
6:00 AM	0.0	0.0		
7:00 AM	34.7	36.8		
8:00 AM	34.7	36.8		
9:00 AM	34.7	36.8		
10:00 AM	34.7	36.8		
11:00 AM	34.7	36.8		
12:00 PM	34.7	36.8		
1:00 PM	34.7	36.8		
2:00 PM	34.7	36.8		
3:00 PM	34.7	36.8		
4:00 PM	34.7	36.8		
5:00 PM	34.7	36.8		
6:00 PM	0.0	0.0		
7:00 PM	0.0	0.0		
8:00 PM	0.0	0.0		
9:00 PM	0.0	0.0		
10:00 PM	0.0	0.0		
11:00 PM	0.0	0.0	Ldn	31.3

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 01/11/2024
 Case Description: Facility Construction

**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Ranch House	Residential	50.0	50.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Welder / Torch	No	40		74.0	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0
Forklift	No	40		79.1	7700.0	0.0
Backhoe	No	40		77.6	7700.0	0.0
Backhoe	No	40		77.6	7700.0	0.0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	36.8	28.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Welder / Torch	30.2	26.3	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Forklift	35.3	31.4	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Backhoe	33.8	29.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Backhoe	33.8	29.8	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A
Total	36.8	38.0	50.0	N/A	50.0	N/A	50.0	N/A	None	N/A	None	N/A	None	N/A

BIDR, LLC Exploratory Well - Facility Construction Phase

Time	Leq	Lmax		
12:00 AM	0.0	0.0		
1:00 AM	0.0	0.0		
2:00 AM	0.0	0.0		
3:00 AM	0.0	0.0		
4:00 AM	0.0	0.0		
5:00 AM	0.0	0.0		
6:00 AM	0.0	0.0		
7:00 AM	38.0	36.8		
8:00 AM	38.0	36.8		
9:00 AM	38.0	36.8		
10:00 AM	38.0	36.8		
11:00 AM	38.0	36.8		
12:00 PM	38.0	36.8		
1:00 PM	38.0	36.8		
2:00 PM	38.0	36.8		
3:00 PM	38.0	36.8		
4:00 PM	38.0	36.8		
5:00 PM	38.0	36.8		
6:00 PM	0.0	0.0		
7:00 PM	0.0	0.0		
8:00 PM	0.0	0.0		
9:00 PM	0.0	0.0		
10:00 PM	0.0	0.0		
11:00 PM	0.0	0.0	Ldn	34.6