

PIONEER NATURAL RESOURCES USA, INC.

O'BRIEN 36-43H TANK BATTERY


30 TAC §106.261/262 ANALYSIS


EPN	FUG		VRU		VRU		LOAD1/FL-1		LOAD2		Total Emissions					30 TAC 106.261/262 Emission Limit				
FIN	FUG		TANK1 - TANK5		TANK6 - TANK10		LOAD1		LOAD2							Hourly	Annual			Hourly
Component	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	Hourly (lb/hr)	Annual (T/yr)	(mg/m³)	ft	K	Hourly (lb/hr)	Annual (T/yr)	In Compliance Hourly?	In Compliance Annual?	
Hydrogen Sulfide	0.00008	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.00005	0.0005	0.0018	0.0006	0.0022	10.0	3,000	8.00	1.25	5.48	Yes	Yes	
Propane (C3)	0.7842	3.4346	0.0000	0.0000	0.0000	0.0000	0.0000	0.8213	2.7086	0.0284	0.1011	1.6338	6.2442	--	3,000	8.00	6.00	10.00	Yes	Yes
Butanes (C4)	0.4332	1.8973	0.0000	0.0000	0.0000	0.0000	0.0000	0.5628	1.8563	0.0029	0.0102	0.9989	3.7638	--	3,000	8.00	6.00	10.00	Yes	Yes
Pentanes (C5)	0.2069	0.9060	0.0000	0.0000	0.0000	0.0000	0.0000	0.2211	0.7293	0.0001	0.0005	0.4281	1.6358	350.0	3,000	8.00	6.00	5.00	Yes	Yes
Hexanes (C6)	0.2090	0.9153	0.0000	0.0000	0.0000	0.0000	0.0000	0.1175	0.3877	0.0001	0.0002	0.3266	1.3032	176.0	3,000	8.00	6.00	5.00	Yes	Yes
Heptanes (C7)	0.1170	0.5123	0.0000	0.0000	0.0000	0.0000	0.0000	0.0292	0.0962	0.00000001	0.00000001	0.1461	0.6085	350.0	3,000	8.00	6.00	5.00	Yes	Yes
Octanes (C8)	0.1307	0.5723	0.0000	0.0000	0.0000	0.0000	0.0116	0.0383	0.000000	0.000000	0.1423	0.6107	350.0	3,000	8.00	6.00	5.00	Yes	Yes	
Nonanes (C9)	0.0965	0.4225	0.0000	0.0000	0.0000	0.0000	0.0028	0.0094	0.0000	0.0000	0.0993	0.4319	1,050.0	3,000	8.00	6.00	5.00	Yes	Yes	
n-Decane (C10)	0.0871	0.3815	0.0000	0.0000	0.0000	0.0000	0.0008	0.0027	0.0000	0.0000	0.0879	0.3842	--	3,000	8.00	1.00	4.38	Yes	Yes	
Undecanes (C11)	0.0848	0.3716	0.0000	0.0000	0.0000	0.0000	0.0002	0.0008	0.0000	0.0000	0.0851	0.3724	--	3,000	8.00	1.00	4.38	Yes	Yes	
Dodecane	0.0766	0.3356	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0000	0.0000	0.0767	0.3358	--	3,000	8.00	1.00	4.38	Yes	Yes	
Tridecane	0.0775	0.3396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0775	0.3396	--	3,000	8.00	1.00	4.38	Yes	Yes	
Tetradecane	0.0666	0.2915	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0666	0.2915	--	3,000	8.00	1.00	4.38	Yes	Yes	
Pentadecane	0.0632	0.2767	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0632	0.2767	--	3,000	8.00	1.00	4.38	Yes	Yes	
Hexadecane	0.0519	0.2273	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0519	0.2273	--	3,000	8.00	1.00	4.38	Yes	Yes	
Heptadecane	0.0524	0.2293	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0524	0.2293	--	3,000	8.00	1.00	4.38	Yes	Yes	
Octadecane	0.0476	0.2084	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0476	0.2084	--	3,000	8.00	1.00	4.38	Yes	Yes	
Nonadecane	0.0464	0.2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0464	0.2033	--	3,000	8.00	1.00	4.38	Yes	Yes	
Eicosane	0.0432	0.1893	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0432	0.1893	--	3,000	8.00	1.00	4.38	Yes	Yes	
Heneicosane	0.0374	0.1638	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0374	0.1638	--	3,000	8.00	1.00	4.38	Yes	Yes	
Docosane	0.0385	0.1686	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0385	0.1686	--	3,000	8.00	1.00	4.38	Yes	Yes	
Tricosane	0.0340	0.1489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0340	0.1489	--	3,000	8.00	1.00	4.38	Yes	Yes	
Tetracosane	0.0299	0.1311	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0299	0.1311	--	3,000	8.00	1.00	4.38	Yes	Yes	
Pentacosane	0.0329	0.1441	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0329	0.1441	--	3,000	8.00	1.00	4.38	Yes	Yes	
Hexacosane	0.0233	0.1023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0233	0.1023	--	3,000	8.00	1.00	4.38	Yes	Yes	
Heptacosane	0.0300	0.1313	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0300	0.1313	--	3,000	8.00	1.00	4.38	Yes	Yes	
Octacosane	0.0244	0.1071	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0244	0.1071	--	3,000	8.00	1.00	4.38	Yes	Yes	
Nonacosane	0.0216	0.0944	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0216	0.0944	--	3,000	8.00	1.00	4.38	Yes	Yes	
Triacontane	0.0241	0.1057	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0241	0.1057	--	3,000	8.00	1.00	4.38	Yes	Yes	
Dotriacontane	0.3550	1.5550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3550	1.5550	--	3,000	8.00	1.00	4.38	Yes	Yes	
Benzene	0.0025	0.0110	0.0000	0.0000	0.0000	0.0000	0.0010	0.0032	0.0003	0.0011	0.0038	0.0153	3.0	3,000	8.00	0.38	1.64	Yes	Yes	
Toluene	0.0059	0.0258	0.0000	0.0000	0.0000	0.0000	0.0010	0.0032	0.0001	0.0002	0.0069	0.0292	188.0	3,000	8.00	6.00	5.00	Yes	Yes	
Ethylbenzene	0.0018	0.0079	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.000002	0.000001	0.0019	0.0083	434.0	3,000	8.00	6.00	5.00	Yes	Yes	
Xylenes	0.0109	0.0476	0.0000	0.0000	0.0000	0.0000	0.0006	0.0020	0.000001	0.000004	0.0115	0.0496	434.0	3,000	8.00	6.00	5.00	Yes	Yes	
VOC	3.3468	14.6590	0.0000	0.0000	0.0000	0.0000	1.7702	5.8382	0.0319	0.1134	5.1489	20.6105								


James Qu

From: Richa Karanjekar <RKaranjekar@apexc.com>
Sent: Thursday, August 15, 2019 11:37 AM
To: James Qu
Subject: RE: [EXT] TCEQ Air Permit_permit number: 157780 project number: 304512, O'brien 36-43H Tank Battery
Attachments: OBrien 36-43H TB Calculations_106-261-262 Analysis.pdf

Dear Mr. Qu,
Please find attached the 106.261/262 table for O'Brien 36-43H Tank Battery (CN600130447, RN108454703).
Please let me know if you need any additional information from our side.
Thanks,
Richa



Richa Karanjekar, Ph.D., P.E.
Sr Engineer
12100 Ford Rd, Ste 401
Dallas, TX 75234
O) 469-365-1103 M) 817-343-7182
 Add me to your contact list!



ENR Top 30 All-Environmental Firm



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From: James Qu <James.Qu@tceq.texas.gov>
Sent: Thursday, August 15, 2019 11:35 AM
To: Richa Karanjekar <RKaranjekar@apexc.com>
Subject: [EXT] TCEQ Air Permit_permit number: 157780 project number: 304512, O'brien 36-43H Tank Battery

CAUTION

Hello Richa,

Per our conversation, this email regarding the permit number: 157780 project number: 304512, O'Brien 36-43H Tank Battery. I think the 30 TAC 106.261/262 table is missing, which is supposed to be displayed in Section 5 in this application file. So, please send me a copy of this page and I can continue processing.

Thank you,

James Qu
Environmental Permit Specialist
Air Permits Division; Rules and Registrations Section
Texas Commission on Environmental Quality (TCEQ)
(512) 239-1287

james.gu@tceq.texas.gov



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