

**Supplemental Land Testimony – Sean Flanagan**  
Cause No. 407; Docket No. 191100729  
Pooling Application, Niobrara and Codell Formations  
Wattenberg Field, Weld County, Colorado

August 2020 Colorado Oil and Gas Conservation Commission Hearing

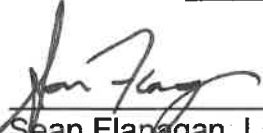
My name is Sean Flanagan, and I am currently employed as a Landman for Extraction Oil & Gas, Inc. (Operator No. 10459) ("Extraction" or "Applicant"). I have several years of experience in oil and gas land and contract work, and I have worked directly or in a supervisory role with the properties that are the subject of this matter.

In support of the Application, I am submitting the following supplement to the previously filed Rule 511 packet. This supplemental material is provided to show Applicant's compliance with Rule 530.c.(1)B. (spud date) and Rule 530.c.(1)C. (cost allocation), and therefore full compliance with Rule 530. This supplement information is submitted in connection with the previously submitted Land Testimony's Exhibit No. 3 and is attached to my sworn testimony and form the basis for the Application requesting an order to pool all interests in two approximate 555.954-acre designated wellbore spacing units established for the Application Lands for the development and operation of the Niobrara and Codell Formations.

**AFFIRMATION**

The matters described herein were all conducted under my direction and control. I hereby swear that to the best of my knowledge and belief, all of the matters set forth herein are true, correct and accurate.

DATED this 12<sup>th</sup> day of AUGUST, 2020.



\_\_\_\_\_  
Sean Flanagan, Landman  
Extraction Oil & Gas Inc.



**370 17<sup>th</sup> St. Ste 5300  
Denver, CO 80202**

May 20, 2020

**CHRISTINE M KRAUSE AND RICK A KRAUSE JT  
86 GRAYS LN  
SEVERANCE, CO 80550**

**Re: Supplemental Information Letter to Well Proposal/Election Packet for the following Wells:**

Ice Man 2W-15-3N, Ice Man 2W-15-4N, Ice Man 2W-15-5C,

Ice Man 2W-15-6N & Ice Man 2W-15-7N

Township 7 North, Range 67 West, 6th P.M.

Section 36: SWSE

Weld County, Colorado

Dear Interest Owner:

Reference is made to that certain well proposal letter dated March 10, 2019 for the above-referenced wells ("Wells"). For clarification purposes, Extraction Oil & Gas, Inc. submits the following supplemental information for the referenced wells. This information is for notice purposes only and requires no action on your part nor should it be construed as a new election or well proposal and does not operate to extend or modify your election period as set forth in the March 10, 2019 Well Proposal and Election Letter(s) for Wells.

Please find the following estimated share of cost, AFE amounts and spud dates for the referenced wells. AFE's are also enclosed for further review.

ESTIMATED SHARE OF COST: .00201%

Well Name	TOTAL AFE	Spud Date
Ice Man 2W-15-3N	\$5,454,703	1/27/2019
Ice Man 2W-15-4N	\$5,454,703	1/26/2019
Ice Man 2W-15-5C	\$4,418,397	1/25/2019
Ice Man 2W-15-6N	\$5,454,703	1/24/2019
Ice Man 2W-15-7N	\$5,454,703	1/23/2019

Should you have any questions or need further clarification, please contact me at 720-974-7797 or at pzaranka@extractionog.com

Sincerely,

EXTRACTION OIL & GAS, INC.

Philip Zaranka  
Landman  
Extraction Oil & Gas, Inc.



## AUTHORIZATION FOR EXPENDITURE

AFE Number 1800010  
 AFE Name Ice Mor 2W-15-3N  
 API  
 Legal SWSF-36-007N-087W8PM  
 Location WELD County, COLORADO  
 Cost Estimate Template O&G - 1.5MI - NOBRRARA - MEDIUM FRAC  
 AFE Estimated Amount (\$) 5,454,703  
 Company EXTRACTION OIL & GAS, INC.

## Cost Estimates

## Intangible Drilling

CASING CREW	961.04	14,500	CEMENT/CEMENTING SERVICES	961.05	105,000	CONTRACT LABOR/ROUSTABOUT	961.11	8,000
DISPOSAL SERVICES	961.12	41,000	ENVIRONMENTAL/HEALTH/SAFETY	961.15	16,000	EQUIPMENT RENTAL-SURFACE	961.16	26,500
EQUIPMENT RENTAL-DOWNHOLE	961.17	36,000	FISHING TOOLS AND SERVICES	961.18	3,500	INSPECTION/TESTING	961.22	6,500
INSURANCE	961.23	22,500	LOCATION/ROADS/RECLAMATION	961.24	50,000	SUPERVISION/FOREMAN	961.31	14,000
SUPERVISION ENGINEER/GEOLOGIC	961.33	0	TRUCKING/TRANSPORTATION	961.36	10,000	WATER	961.40	7,000
SEISMIC	961.47	3,000	BONUS-SAFETY/BOTTOM HOLE	961.60	0	CAMP/S/LOCATION RENTALS	961.61	12,000
CORING & ANALYSIS	961.62	0	DIRECTIONAL EQUIP & SERVICES	961.63	75,000	DRILL BITS	961.64	27,000
DRILL STEM TEST	961.66	0	DRILLING CONTRACT	961.66	140,000	FUEL/POWER/ELECTRICITY	961.67	30,000
LABOR/CLEAN & DRIFT	961.68	6,250	LEGAL/TITLE	961.69	10,000	MUD/CHEMICAL/SAFETY WATER	961.70	26,000
MUD LOGGING	961.71	6,500	OPEN HOLE LOGS/WIRELINE	961.72	6,500	RIG MOBIL/OEMOBI	961.73	57,750
SOLIDS CONTROLS	961.74	25,000	SURFACE DAMAGES	961.75	5,000	SURVEYS/PERMITS	961.76	2,000
VALVES/FITTINGS/TOOLS	961.77	1,000	WELDING	961.78	1,500	WELL CONTROL/ROTATING HEAD	961.79	4,000
DRILLING OVERHEAD	961.92	2,750	PLUG AND ABANDON	961.95	0	STORMWATER AND RECLAMATION	961.87	0
REMEDIATION	961.88	0	AIR PERMITTING AND COMPLIANCE	961.95	0	INTANGIBLE DRILLING CONTINGENCY	961.95	42,688

## Cost Estimates

## Intangible Drilling

CASING EQUIPMENT/HARDWARE	963.60	25,000	CASING HEAD VALVES/FITTINGS	963.61	4,500	CONDUCTOR CASING	963.62	12,000
INTERMEDIATE CASING	963.63	0	SURFACE CASING	963.64	42,000			

## Cost Estimates

## Intangible Completions

CASED HOLE LOGGING/PERFORATING	962.03	262,000	CASING CREW	962.04	0	CEMENT/CEMENTING SERVICES	962.05	0
COIL TUBING UNIT	962.06	100,000	COMPLETION FLUIDS	962.07	18,000	COMPLETION TOOLS/SERVICE	962.08	40,000
WIRELINE SERVICE	962.10	10,000	ROUSTABOUT SERVICES	962.11	10,000	DISPOSAL SERVICES	962.12	47,276
ENVIRONMENTAL/HEALTH/SAFETY	962.15	25,000	EQUIPMENT RENTAL	962.16	180,000	FISHING TOOLS AND SERVICES	962.16	10,000
FLOW TESTING	962.18	64,675	GAS SALES CONNECTION	962.21	75,000	INSPECTION/TESTING	962.22	1,000
LOCATION/ROADS/RECLAMATION	962.24	30,000	SNUBBING UNIT	962.30	12,500	SUPERVISION/FOREMAN	962.31	40,000
TRUCKING/TRANSPORTATION	962.36	12,500	WATER PURCHASE/HAULING	962.41	153,839	WATER STORAGE/TANK RENTAL	962.42	20,000
WATER TREATMENT/HEATING	962.43	73,728	WELLBORE INTEGRITY	962.44	20,000	WORKOVER RIG	962.46	20,000
STIMULATION/FRACTURING	962.60	1,942,434	COMPLETION OVERHEAD	962.92	5,000	WELLBORE INTEGRITY PA	962.46	2,000
FUEL/POWER/ELECTRICITY	962.67	4,000	BOP RENTAL/STACK EQUIPMENT	962.47	0	AUXILIARY RIG EQUIPMENT	962.48	0
TUBING RENTAL	962.49	0	MILL OUT FLOWBACK	962.20	5,000	FRAC FLOWBACK	962.23	2,500
STORMWATER AND RECLAMATION	962.87	0	REMEDIATION	962.88	0	AIR PERMITTING AND COMPLIANCE	962.89	0
FRAC CLEANOUT	962.14	10,000	INTANGIBLE COMPLETION CONTINGENCY	962.95	159,623			

## Cost Estimates

## Tangible Completions

PLUNGER LIFT	964.26	0	TUBING	964.37	31,000	WELL HEAD VALVES/FITTINGS	964.45	13,500
DOWNHOLE PUMP	964.48	0	PUMPING UNIT	964.49	0	RODS/BOXES/GUIDE/COUPLINGS	964.50	0
PRODUCTION PACKER/ANCHOR	964.51	7,500	SUBSURFACE EQUIPMENT (OTHER)	964.52	6,000	PRODUCTION CASING/LINER	964.60	240,000
LINER HANGER/PAKER ASSEMBLY	964.61	0						

## Cost Estimates

## Intangible Surface Equipment &amp; Facilities

CONTRACT LABOR/ROUSTABOUT	965.11	150,000	EQUIPMENT RENTAL	965.16	22,000	INSPECTION/TESTING	965.22	5,250
SUPERVISION/FOREMAN	965.31	9,500	TRUCKING/TRANSPORTATION	965.36	7,500	CIVIL CONSTRUCTION	965.80	1,250
CONTRACT ENGINEERING	965.61	23,000	PRE-FAB/PAINTING	965.62	2,250	MAJOR CONSTRUCTION OVERHEAD	965.92	0
STORMWATER AND RECLAMATION	965.87	0	REMEDIATION	965.65	0	AIR PERMITTING AND COMPLIANCE	965.89	0
INTANGIBLE FACILITY CONTINGENCY	965.95	11,038						

## Cost Estimates

## Tangible Surface Equipment &amp; Facilities

AUTOMATION/METERING EQUIPMENT	966.02	80,000	COMPRESSION/VRU	966.06	2,150	ELECTRICAL EQUIPMENT	966.13	66,000
EMISSION CONTROL DEVICE	966.14	21,750	PIPE/PIPING/FLOWLINES	966.25	45,000	SECONDARY CONTAINMENTS	966.26	9,250
SEPARATOR/TREATER/SAND TRAP/SCRUBBER	966.29	104,000	SURFACE EQUIPMENT (OTHER)	966.34	21,000	TANKS/PITS	966.35	16,000
VALVES/FITTINGS/MATERIALS	966.36	91,750	LOCATION/ROADS/RECLAMATION	966.24	6,500			

## Cost Estimates

## Leasehold

SEISMIC	950.47	0	BROKER FEES	950.81	55,377	BONUS PAYMENTS	950.82	21
GEOLOGICAL CONSULTING	950.83	0	LAND COMMISSION	950.84	0	LEGAL	950.85	56,974
ROW/SURFACE USE AGREEMENT	950.95	0	PREDRILL PERMITTING/SURVEY	950.15	13,671	RECORDING FEES	950.87	61
MINERAL PURCHASE	950.88	0						

	Drilling	Completions	Surface Equip/Facilities	Gross Cost
Leasehold				126,303
Intangible	853,750	3,196,452	220,750	4,270,952
Tangible	83,500	298,000	462,400	843,900
Contingencies (5% Intangibles)	42,688	159,623	11,038	213,548
Total	979,938	3,654,274	694,188	5,454,703

## INTEREST OWNER

## SIGNATURE FOR APPROVAL

Extraction Oil &amp; Gas

By:

Dr. [Signature]

Company:

By:

Print Name:

Print Name: [Signature]

Working Interest:

Print Name:

Date:

Date: 1/15/2019

Date:

Date:

AFE Number 1900011

AFE Name 10a Min 2W-15-4N

API

Legd SW3E-38-007N-057W5PM

**Location** WELD County, COLORADO

**Cost Estimate Template D&C - 1.5Ml - NIOBRARA - MEDIUM FRAC**

**AFE Estimated Amount (\$)** 5,454,703

**Company** **EXTRACTION OIL & GAS, INC.**

### Intensive Drilling

### Translate Drilling

### Intrascopic Correlations

### Tangible Completion

### **Integrable Surface Equipment & Facilities**

### Longitudinal Surface Fracturement & Erosion

LeaseholdINTEREST OWNER

**SIGNATURE FOR APPROVAL**

Extraction Oil &amp; Gas

By:

**Print Name:** \_\_\_\_\_

Date: \_\_\_\_\_

**Company:**

By:

Print Name: \_\_\_\_\_

**Title:**



## AUTHORIZATION FOR EXPENDITURE

AFE Number 1900012  
 AFE Name Ice Man 2W-15-6C  
 API  
 Legal SWSE-36-007H-057WSPM  
 Location YIELD County, COLORADO  
 Cost Estimate Template DEC - 1.5M - CODELL - STANDARD FRAC  
 AFE Estimated Amount (\$) 4,418,397  
 Company EXTRACTION OIL & GAS, INC.

## Cost Estimates

Cost Estimates			Intangible Drilling					
			981					
CASING CREW	961.04	14,500	CEMENT/CEMENTING SERVICES	961.05	105,000	CONTRACT LABOR/ROUSTABOUT	961.11	8,000
DISPOSAL SERVICES	961.12	41,000	ENVIRONMENTAL/HEALTH/SAFETY	961.15	16,000	EQUIPMENT RENTAL-SURFACE	961.16	26,500
EQUIPMENT RENTAL-DOWNHOLE	961.17	36,000	FISHING TOOLS AND SERVICES	961.19	3,500	INSPECTION/TESTING	961.22	8,500
INSURANCE	961.23	22,500	LOCATION/ROADS/RECLAMATION	961.24	50,000	SUPERVISION/FOREMAN	961.31	14,000
SUPERVISION ENGINEER/GEOLOGIC	961.33	0	TRUCKING/TRANSPORTATION	961.35	10,000	WATER	961.40	7,000
SEISMIC	961.47	3,000	BONUS-SAFETY/BOTTOM HOLE	961.60	0	CAMP/SALOON RENTALS	961.61	12,000
CORING & ANALYSIS	961.62	0	DIRECTIONAL EQUIP & SERVICES	961.63	75,000	DRILL BITS	961.64	27,000
DRILL STEM TEST	961.65	0	DRILLING CONTRACT	961.65	140,000	FUEL/POWER/ELECTRICITY	961.67	30,000
LABOR/CLEAN & DRIFT	961.68	6,250	LEGAL/TITLE	961.69	10,000	MUD/CHEMICALS/MUD WATER	961.70	76,000
MUD LOGGING	961.71	8,500	OPEN HOLE LOGS/WIRELINE	961.72	6,500	RIG MOBIL/DEMOL	961.73	57,750
SOLIDS CONTROLS	961.74	25,000	SURFACE DAMAGES	961.75	5,000	SURVEYS/PERMITS	961.76	2,000
VALVES/FITTINGS/TOOLS	961.77	1,000	WELDING	961.78	1,500	WELL CONTROL/ROTATING HEAD	961.79	4,000
DRILLING OVERHEAD	961.82	2,750	PLUG AND ABANDON	961.89	0	STORMWATER AND RECLAMATION	961.87	0
REMEDATION	961.86	0	AIR PERMITTING AND COMPLIANCE	961.89	0	INTANGIBLE DRILLING CONTINGENCY	961.95	42,688

## Cost Estimates

Tangible Drilling								
983								
CASING EQUIPMENT/HARDWARE	963.60	25,000	CASING HEAD/VALVES/FITTINGS	963.61	4,500	CONDUCTOR CASING	963.62	12,000
INTERMEDIATE CASING	963.63	0	SURFACE CASING	963.64	42,000			

## Cost Estimates

Cost Estimates			Intangible Completions					
			982					
CASED HOLE LOGGING/PERFORMING	962.03	211,000	CASING CREW	962.04	0	CEMENT/CEMENTING SERVICES	962.06	0
COIL TUBING UNIT	962.05	100,000	COMPLETION FLUIDS	962.07	18,000	COMPLETION TOOLS/SERVICE	962.08	40,000
WIRELINE SERVICE	962.10	10,000	ROUSTABOUT SERVICES	962.11	10,000	DISPOSAL SERVICES	962.12	29,150
ENVIRONMENTAL/HEALTH/SAFETY	962.15	25,000	EQUIPMENT RENTAL	962.16	160,600	FISHING TOOLS AND SERVICES	962.18	10,000
FLOW TESTING	962.19	62,175	GAS SALES CONNECTION	962.21	75,000	INSPECTION/TESTING	962.22	1,000
LOCATION/ROADS/RECLAMATION	962.24	30,000	SHUDDING UNIT	962.30	12,500	SUPERVISION/FOREMAN	962.31	40,000
TRUCKING/TRANSPORTATION	962.36	12,500	WATER PURCHASE/HAULING	962.41	94,950	WATER STORAGE/TANK RENTAL	962.42	20,000
WATER TREATMENT/HEATING	962.43	43,200	WELLBORE INTEGRITY	962.44	20,000	WORKOVER RIG	962.46	20,000
STIMULATION/FRACTURING	962.60	1,136,619	COMPLETION OVERHEAD	962.92	5,000	WELLBORE INTEGRITY PA	962.45	2,000
FUEL/POWER/ELECTRICITY	962.67	4,000	BOP RENTAL/STACK EQUIPMENT	962.47	0	AUXILIARY RIG EQUIPMENT	962.48	0
TUBING RENTAL	962.49	0	MILL OUT FLOWBACK	962.50	5,000	FRAC FLOWBACK	962.53	2,800
STORMWATER AND RECLAMATION	962.87	0	REMEDATION	962.88	0	AIR PERMITTING AND COMPLIANCE	962.89	0
FRAC CLEANOUT	962.14	10,000	INTANGIBLE COMPLETION CONTINGENCY	962.95	110,475			

## Cost Estimates

Cost Estimates			Tangible Completions					
			984					
PLUNGER LIFT	964.26	0	TUBING	964.37	31,000	WELLHEAD/VALVES/FITTINGS	964.45	13,500
DOWNHOLE PUMP	964.48	0	PUMPING UNIT	964.49	0	RODS/BOXES/GUIDES/COUPLINGS	964.50	0
PRODUCTION PACKER/ANCHOR	964.51	7,500	SUBSURFACE EQUIPMENT (OTHER)	964.52	6,000	PRODUCTION CASING/LINER	964.60	240,000
LINER HANGER/PACKER ASSEMBLY	964.61	0						

## Cost Estimates

Cost Estimates			Intangible Surface Equipment & Facilities					
			985					
CONTRACT LABOR/ROUSTABOUT	965.11	150,000	EQUIPMENT RENTAL	965.16	22,000	INSPECTION/TESTING	965.22	5,250
SUPERVISION/FOREMAN	965.31	9,500	TRUCKING/TRANSPORTATION	965.36	7,500	CIVIL CONSTRUCTION	965.60	1,250
CONTRACT ENGINEERING	965.61	23,000	PRE-FAB/PAINTING	965.62	2,250	MAJOR CONSTRUCTION OVERHEAD	965.92	0
STORMWATER AND RECLAMATION	965.87	0	REMEDATION	965.88	0	AIR PERMITTING AND COMPLIANCE	965.88	0
INTANGIBLE FACILITY CONTINGENCY	965.95	11,038						

## Cost Estimates

Tangible Surface Equipment & Facilities								
986								
AUTOMATION/METERING EQUIPMENT	966.02	80,000	COMPRESSION/VRI	966.09	2,150	ELECTRICAL EQUIPMENT	966.13	65,000
EMISSION CONTROL DEVICE	966.14	21,750	PIPE/PIPING/FLOW LINES	966.25	45,000	SECONDARY CONTAINMENTS	966.28	9,250
SEPARATOR/TREATER/SAND TRAP/SCRUBBER	966.29	104,000	SURFACE EQUIPMENT (OTHER)	966.34	21,000	TANKS/PITS	966.35	16,000
VALVES/FITTINGS/MATERIALS	966.39	91,750	LOCATION/ROADS/RECLAMATION	966.24	6,500			

## Cost Estimates

Cost Estimates			Leasehold					
			988					
SEISMIC	950.47	0	BROKER FEES	950.81	65,377	BONUS PAYMENTS	950.82	21
GEOLOGICAL CONSULTING	950.83	0	LAND COMMISSION	950.84	0	LEGAL	950.85	56,974
ROW/SURFACE USE AGREEMENT	950.86	0	PREDRILL PERMITTING/SURVEY	950.19	13,871	RECORDING FEES	950.87	61
MINERAL PURCHASE	950.88	0						

	Drilling	Completions	Surface Equip/Facilities	Gross Cost
Leasehold				126,303
Intangible	853,750	2,209,494	220,750	3,283,994
Tangible	83,500	298,000	462,400	843,900
Contingencies (5% Intangibles)	42,688	110,475	11,038	164,200
Total	979,938	2,617,968	694,188	4,418,397

## INTEREST OWNER

## SIGNATURE FOR APPROVAL

Extraction Oil &amp; Gas

By:

By:

Print Name:

Print Name:

Date:

Date:

Company:

Working Interest:

Date:

By:

Print Name:

Title:



## AUTHORIZATION FOR EXPENDITURE

AFE Number 1900013  
 AFE Name Ice Mar 2W-15-6N  
 API  
 Legal SWSE-38-007N-067W6PM  
 Location WELD County, COLORADO  
 Cost Estimate Template D&C - 1.5MI - NOBARRA - MEDIUM FRAC  
 AFE Estimated Amount (\$) 5,454,703  
 Company EXTRACTION OIL & GAS, INC.

## Cost Estimates

Cost Estimates		Intangible Drilling						
		281						
CASING CREW	961.04	14,500	CEMENT/CEMENTING SERVICES	961.05	105,000	CONTRACT LABOR/ROUSTABOUT	961.11	8,000
DISPOSAL SERVICES	961.12	41,000	ENVIRONMENTAL/HEALTH/SAFETY	961.15	16,000	EQUIPMENT RENTAL-SURFACE	961.16	26,500
EQUIPMENT RENTAL-DOWNHOLE	961.17	36,000	FISHING TOOLS AND SERVICES	961.19	3,500	INSPECTION/TESTING	961.22	6,500
INSURANCE	961.23	22,500	LOCATION/ROADS/RECLAMATION	961.24	80,000	SUPERVISION/FOREMAN	961.31	14,000
SUPERVISION ENGINEER/GEOLOGIC	961.33	0	TRUCKING/TRANSPORTATION	961.35	10,000	WATER	961.40	7,000
SEISMIC	961.47	3,000	BONUS-SAFETY/BOTTOM HOLE	961.60	0	CAMP/LOCATION RENTALS	961.61	12,000
CORING & ANALYSIS	961.62	0	DIRECTIONAL EQUIP & SERVICES	961.63	75,000	DRILL BITS	961.64	27,000
DRILL STEM TEST	961.65	0	DRILLING CONTRACT	961.66	140,000	FUEL/POWER/ELECTRICITY	961.67	30,000
LABOR/CLEAN & DRIFT	961.68	6,250	LEGAL/TITLE	961.69	10,000	MUD/CHEMICALS/MUD WATER	961.70	76,000
MUD LOGGING	961.71	6,500	OPEN HOLE LOGS/WIRELINE	961.72	6,500	RIG MOBIL/DEMObil	961.73	57,750
SOLIDS CONTROLS	961.74	25,000	SURFACE DAMAGES	961.75	5,000	SURVEYS/PERMITS	961.76	2,000
VALVES/FITTINGS/TOOLS	961.77	1,000	WELDING	961.78	1,500	WELL CONTROL/ROTATING HEAD	961.79	4,000
DRILLING OVERHEAD	961.82	2,750	PLUG AND ABANDON	961.89	0	STORMWATER AND RECLAMATION	961.87	0
REMEDICATION	961.88	0	AIR PERMITTING AND COMPLIANCE	961.89	0	INTANGIBLE DRILLING CONTINGENCY	961.95	42,688

## Cost Estimates

Tangible Drilling									
283									
CASING EQUIPMENT/HARDWARE	963.60	25,000	CASING HEAD/VALVES/FITTINGS	963.61	4,500	CONDUCTOR CASING	963.62	12,000	
INTERMEDIATE CASING	963.63	0	SURFACE CASING	963.64	42,000				

## Cost Estimates

Cost Estimates			Intangible Completions					
			282					
CASED HOLE LOGGING/PERFORATING	962.03	282,000	CASING CREW	962.04	0	CEMENT/CEMENTING SERVICES	962.05	0
COIL TUBING UNIT	962.06	100,000	COMPLETION FLUIDS	962.07	18,000	COMPLETION TOOLS/SERVICE	962.08	40,000
WIRELINE SERVICE	962.10	10,000	ROUSTABOUT SERVICES	962.11	10,000	DISPOSAL SERVICES	962.12	47,275
ENVIRONMENTAL/HEALTH/SAFETY	962.15	25,000	EQUIPMENT RENTAL	962.16	160,000	FISHING TOOLS AND SERVICES	962.18	10,000
FLOW TESTING	962.19	64,675	GAS SALES CONNECTION	962.21	75,000	INSPECTION/TESTING	962.22	1,000
LOCATION/ROADS/RECLAMATION	962.24	30,000	SHUDDING UNIT	962.30	12,500	SUPERVISION/FOREMAN	962.31	40,000
TRUCKING/TRANSPORTATION	962.36	12,500	WATER PURCHASE/HAULING	962.41	153,839	WATER STORAGE/TANK RENTAL	962.42	20,000
WATER TREATMENT/HEATING	962.43	73,728	WELLBORE INTEGRITY	962.44	20,000	WORKOVER RIG	962.46	20,000
STIMULATION/FRACTURING	962.60	1,942,434	COMPLETION OVERHEAD	962.62	5,000	WELLBORE INTEGRITY PA	962.45	2,000
FUEL/POWER/ELECTRICITY	962.67	4,000	BOP RENTAL/STACK EQUIPMENT	962.47	0	AUXILIARY RIG EQUIPMENT	962.48	0
TUBING RENTAL	962.69	0	MILL OUT FLOWBACK	962.20	5,000	FRAC FLOWBACK	962.23	2,500
STORMWATER AND RECLAMATION	962.87	0	REMEDICATION	962.88	0	AIR PERMITTING AND COMPLIANCE	962.68	0
FRAC CLEANOUT	962.14	10,000	INTANGIBLE COMPLETION CONTINGENCY	962.95	159,823			

## Cost Estimates

Cost Estimates			Tangible Completions					
			284					
PLUNGER LIFT	964.26	0	TUBING	964.37	31,000	WELLHEAD/VALVES/FITTINGS	964.45	13,500
DOWNHOLE PUMP	964.48	0	PUMPING UNIT	964.49	0	RODS/BOXES/GUIDES/COUPLINGS	964.50	0
PRODUCTION PACKER/ANCHOR	964.51	7,500	SUBSURFACE EQUIPMENT (OTHER)	964.52	5,000	PRODUCTION CASING/LINER	964.60	240,000
LINER HANGER/PAKER ASSEMBLY	964.01	0						

## Cost Estimates

Intangible Surface Equipment & Facilities								
285								
CONTRACT LABOR/ROUSTABOUT	965.11	150,000	EQUIPMENT RENTAL	965.16	22,000	INSPECTION/TESTING	965.22	5,250
SUPERVISION/FOREMAN	965.31	9,500	TRUCKING/TRANSPORTATION	965.36	7,500	CIVIL CONSTRUCTION	965.60	1,250
CONTRACT ENGINEERING	965.51	23,000	PRE-FAB/PAINTING	965.62	2,250	MAJOR CONSTRUCTION OVERHEAD	965.92	0
STORMWATER AND RECLAMATION	965.87	0	REMEDICATION	965.88	0	AIR PERMITTING AND COMPLIANCE	965.89	0
INTANGIBLE FACILITY CONTINGENCY	965.95	11,038						

## Cost Estimates

Cost Estimates			Intangible Surface Equipment & Facilities					
			286					
AUTOMATION/METERING EQUIPMENT	966.02	60,000	COMPRESSION/VRU	966.09	2,160	ELECTRICAL EQUIPMENT	966.13	65,000
EMISSION CONTROL DEVICE	966.14	21,750	PIPE/PIPING/FLOWLINES	966.25	45,000	SECONDARY CONTAINMENTS	966.28	9,250
SEPARATOR/TREATERS/SAND TRAP/SCRUBBER	966.29	104,000	SURFACE EQUIPMENT (OTHER)	966.34	21,000	TANKS/PITS	966.35	16,000
VALVES/FITTINGS/MATERIALS	966.39	91,750	LOCATION/ROADS/RECLAMATION	966.24	6,500			

## Cost Estimates

Cost Estimates		Leasehold						
		288						
SEISMIC	950.47	0	BROKER FEES	950.81	55,377	BONUS PAYMENTS	950.82	21
GEOLOGICAL CONSULTING	950.83	0	LAND COMMISSION	950.84	0	LEGAL	950.85	56,974
ROW/SURFACE USE AGREEMENT	950.86	0	PREDRILL PERMITTING/SURVEY	950.15	13,871	RECORDING FEES	950.87	61
MINERAL PURCHASE	950.88	0						

	Drilling	Completions	Surface Equip/Facilities	Gross Cost
Leasehold				128,303
Intangible	853,780	3,198,452	220,750	4,270,982
Tangible	83,600	298,000	462,400	843,900
Contingencies (5% Intangibles)	42,688	159,823	11,038	213,548
Total	979,938	3,654,274	694,188	5,454,703

## INTEREST OWNER

## SIGNATURE FOR APPROVAL

Extraction Oil & Gas By: Print Name: ESJ Date: 1/15/2019  
 By: Print Name: WED Date: 1/15/19  
 Company: \_\_\_\_\_ Working Interest: \_\_\_\_\_ Title: \_\_\_\_\_  
 By: \_\_\_\_\_ Print Name: \_\_\_\_\_ Title: \_\_\_\_\_

**AUTHORIZATION FOR EXPENDITURE**

APE Number 1900014

APE Name Joe Man 2W-15-7N

API

Legal SYSE-39-007N-067W8PM

Location WELD County, COLORADO

Cost Estimate Template D&amp;C - 1.5MI - NIOBRARA - MEDIUM FRAC

APE Estimated Amount (\$) \$ 454,703

Company EXTRACTION OIL &amp; GAS, INC.

**Cost Estimates****Intangible Drilling**

		<b>Intangible Drilling</b>			
		<b>851</b>			
CASING CREW	961.04	14,500	CEMENT/CEMENTING SERVICES	961.05	105,000
DISPOSAL SERVICES	961.12	41,000	ENVIRONMENTAL/HEALTH/SAFETY	961.15	16,000
EQUIPMENT RENTAL-DOWNHOLE	961.17	38,000	FISHING TOOLS AND SERVICES	961.18	3,500
INSURANCE	961.23	22,500	LOCATION/ROADS/RECLAMATION	961.24	50,000
SUPERVISION ENGINEER/GEOLOGIC	961.33	0	TRUCKING/TRANSPORTATION	961.36	10,000
SEISMIC	961.47	3,000	BONUS-SAFETY/BOTTOM HOLE	961.60	0
CORING & ANALYSIS	961.62	0	DIRECTIONAL EQUIP & SERVICES	961.63	75,000
DRILL STEM TEST	961.66	0	DRILLING CONTRACT	961.66	140,000
LABOR/CLEAN & DRIFT	961.68	6,250	LEGAL/TITLE	961.68	10,000
MUD LOGGING	961.71	8,500	OPEN HOLE LOGS/WIRELINE	961.72	6,500
SOLIDS CONTROLS	961.74	25,000	SURFACE DAMAGES	961.75	5,000
VALVES/FITTINGS/TOOLS	961.77	1,000	WELDING	961.78	1,500
DRILLING OVERHEAD	961.82	2,750	PLUG AND ABANDON	961.99	0
REMEDIATION	961.86	0	AIR PERMITTING AND COMPLIANCE	961.88	0
			CONTRACT LABOR/ROUSTABOUT	961.11	8,000
			EQUIPMENT RENTAL-SURFACE	961.16	26,500
			INSPECTION/TESTING	961.22	6,500
			SUPERVISION/FOREMAN	961.31	14,000
			WATER	961.40	7,000
			CAMP/LOCATION RENTALS	961.61	12,000
			DRILL BITS	961.64	27,000
			FUEL/POWER/ELECTRICITY	961.67	30,000
			MUD/CHEMICALS/MUD WATER	961.70	76,000
			RIG MOBIL/DEMObIL	961.73	57,750
			SURVEYS/PERMITS	961.76	2,000
			WELL CONTROL/ROTATING HEAD	961.79	4,000
			STORMWATER AND RECLAMATION	961.87	0
			INTANGIBLE DRILLING CONTINGENCY	961.96	42,668

**Cost Estimates****Tangible Drilling**

		<b>Tangible Drilling</b>			
		<b>853</b>			
CASING EQUIPMENT/HARDWARE	963.60	25,000	CASING HEAD/VALVES/FITTINGS	963.61	4,500
INTERMEDIATE CASING	963.63	0	SURFACE CASING	963.64	42,000
			CONDUCTOR CASING	963.62	12,000

**Cost Estimates****Intangible Completions**

		<b>Intangible Completions</b>			
		<b>852</b>			
CASED HOLE LOGGING/PERFORATING	962.03	262,000	CASING CREW	962.04	0
COIL TUBING UNIT	962.09	100,000	COMPLETION FLUIDS	962.07	18,000
WIRELINE SERVICE	962.10	10,000	ROUSTABOUT SERVICES	962.11	10,000
ENVIRONMENTAL/HEALTH/SAFETY	962.15	25,000	EQUIPMENT RENTAL	962.16	160,000
FLOW TESTING	962.18	84,875	GAS SALES CONNECTION	962.21	75,000
LOCATION/ROADS/RECLAMATION	962.24	30,000	SHUDDING UNIT	962.30	12,500
TRUCKING/TRANSPORTATION	962.36	12,500	WATER PURCHASE/HAULING	962.41	153,839
WATER TREATMENT/HEATING	962.43	73,728	WELLBORE INTEGRITY	962.44	20,000
STIMULATION/FRACTURING	962.60	1,942,434	COMPLETION OVERHEAD	962.82	6,000
FUEL/POWER/ELECTRICITY	962.67	4,000	BOP RENTAL/STACK EQUIPMENT	962.47	0
TUBING RENTAL	962.49	0	MILL OUT FLOWBACK	962.20	5,000
STORMWATER AND RECLAMATION	962.87	0	REMEDIATION	962.88	0
FRAC CLEANOUT	962.14	10,000	INTANGIBLE COMPLETION CONTINGENCY	962.95	156,823
			CEMENT/CEMENTING SERVICES	962.05	0
			COMPLETION TOOLS/SERVICE	962.06	40,000
			DISPOSAL SERVICES	962.12	47,278
			FISHING TOOLS AND SERVICES	962.18	10,000
			INSPECTION/TESTING	962.22	1,000
			SUPERVISION/FOREMAN	962.31	40,000
			WATER STORAGE/TANK RENTAL	962.42	20,000
			WORKOVER RIG	962.46	20,000
			WELLBORE INTEGRITY PA	962.45	2,000
			AUXILIARY RIG EQUIPMENT	962.48	0
			FRAC FLOWBACK	962.23	2,500
			AIR PERMITTING AND COMPLIANCE	962.89	0

**Cost Estimates****Tangible Completions**

		<b>Tangible Completions</b>			
		<b>854</b>			
PLUNGER LIFT	964.26	0	TUBING	964.37	31,000
DOWNHOLE PUMP	964.48	0	PUMPING UNIT	964.49	0
PRODUCTION PACKER/ANCHOR	964.51	7,500	SUBSURFACE EQUIPMENT (OTHER)	964.52	6,000
LINER HANGER/PAKER ASSEMBLY	964.61	0	WELL HEAD/VALVES/FITTINGS	964.45	13,500
			RODS/BOXES/GUIDES/COUPLINGS	964.50	0
			PRODUCTION CASING/LINER	964.60	240,000

**Cost Estimates****Intangible Surface Equipment & Facilities**

		<b>Intangible Surface Equipment &amp; Facilities</b>			
		<b>855</b>			
CONTRACT LABOR/ROUSTABOUT	965.11	150,000	EQUIPMENT RENTAL	965.16	22,000
SUPERVISION/FOREMAN	965.31	9,500	TRUCKING/TRANSPORTATION	965.36	7,500
CONTRACT ENGINEERING	965.61	23,000	PRE-FAB/PAINING	965.62	2,250
STORMWATER AND RECLAMATION	965.87	0	REMEDIATION	965.89	0
INTANGIBLE FACILITY CONTINGENCY	965.96	11,038	INSPECTION/TESTING	965.22	3,250
			CIVIL CONSTRUCTION	965.60	1,250
			MAJOR CONSTRUCTION OVERHEAD	965.92	0
			AIR PERMITTING AND COMPLIANCE	965.88	0

**Cost Estimates****Tangible Surface Equipment & Facilities**

		<b>Tangible Surface Equipment &amp; Facilities</b>			
		<b>856</b>			
AUTOMATION/METERING EQUIPMENT	966.02	80,000	COMPRESSION/VRIJ	966.09	2,150
EMISSION CONTROL DEVICE	966.14	21,750	PIPE/PIPING/FLOW LINES	966.25	45,000
SEPARATOR/TREATER/SAND TRAP/SCRUBBER	966.29	104,000	SURFACE EQUIPMENT (OTHER)	966.34	21,000
VALVES/FITTINGS/MATERIALS	966.39	81,750	LOCATION/ROADS/RECLAMATION	966.24	6,500
			ELECTRICAL EQUIPMENT	966.13	66,000
			SECONDARY CONTAINMENTS	966.28	9,250
			TANKS/PITS	966.35	16,000

**Cost Estimates****Leasehold**

		<b>Leasehold</b>			
		<b>850</b>			
SEISMIC	950.47	0	BROKER FEES	950.81	55,377
GEOLOGICAL CONSULTING	950.83	0	LAND COMMISSION	950.84	0
ROW/SURFACE USE AGREEMENT	950.86	0	PREDRILL PERMITTING/SURVEY	950.15	13,871
MINERAL PURCHASE	950.88	0	BONUS PAYMENTS	950.82	21
			LEGAL	950.85	56,974
			RECORDING FEES	950.87	61

	Drilling	Completions	Surface Equip/Facilities	Gross Cost
Leasehold				126,303
Intangible	853,750	3,198,452	220,750	4,270,952
Tangible	83,500	298,000	462,400	843,900
Contingencies (5% Intangibles)	42,888	159,823	11,038	213,548
Total	979,938	3,654,274	694,188	5,454,703

**INTEREST OWNER****SIGNATURE FOR APPROVAL**

Extraction Oil &amp; Gas

By:

Print Name:

Date:

By:

Print Name:

Date:

Company:

Working Interest:

Date:

By:

Print Name:

Title:

**Second Supplemental Land Testimony – Sean Flanagan**

Cause No. 407; Docket No. 191100729  
Pooling Application, Niobrara and Codell Formations  
Wattenberg Field, Weld County, Colorado

February 2021 Colorado Oil and Gas Conservation Commission Hearing

My name is Sean Flanagan, and I am currently employed as a Landman for Extraction Oil & Gas, Inc. (Operator No. 10459) (“Extraction” or “Applicant”). I have several years of experience in oil and gas land and contract work, and I have worked directly or in a supervisory role with the properties that are the subject of this matter.

In support of the Application, I am submitting the following supplement to the Exhibit 2.B. contained within the previously filed Rule 511 packet. This supplemental material is provided to reflect a change in the treatment of the following mineral interest owner:

RYAN GUINN  
343 SCOTCH PINE COURT  
SEVERANCE, CO 80550

In its original 511 Submission, Extraction sought to apply cost recovery penalties as provided for in §34-60-116(7), C.R.S., against this owner (as reflected in the original Exhibit 2.B.). This 2<sup>nd</sup> Supplemental Land Testimony is being submitted to reflect Mr. Guinn’s interest as that of a consenting interest owner for each of the Wells subject to this Application, and Extraction is not seeking cost recovery against that interest.

Supplemental Exhibit 2.B.: Nonconsenting Parties:

As of the date of this testimony, Applicant has been unable to obtain executed leases (if applicable) or agreements to participate in the Subject Wells from those parties identified in Supplemental Exhibit No. 2.B. (“nonconsenting party”) listed under each well. Various owners within the Application Lands have elected to participate in some wells, but not others. This Supplemental Exhibit 2.B. is being provided to identify exactly which parties are to be deemed a nonconsenting party, and to what wells.

“Ryan Guinn” appears within this list to reflect consistency with the initial filing; however, that name has been struck reflecting Extraction’s intention not to seek cost recovery penalties against that interest. A revised proposed order has been submitted concurrently with this Second Supplemental Land Testimony consistent herewith.



**AFFIRMATION**

The matters described herein were all conducted under my direction and control. I hereby swear that to the best of my knowledge and belief, all of the matters set forth herein are true, correct and accurate.

DATED this 10<sup>th</sup> day of February, 2021.

A handwritten signature in blue ink, appearing to read "Sean Flanagan".

---

Sean Flanagan, Landman  
Extraction Oil & Gas Inc.

**EXHIBIT 2.B.**  
Nonconsenting Parties

**Ice Man 2W-15-1C (API No. 05-123-46340) – Codell Formation – WSU No. 1**

Lessees:

- None

Unleased Mineral Owners:

- Aaron M. Burd and Jamie A. Burd, as joint tenants
- Alan W. Lind
- Alberto A. Olivo
- Alison C. Koster
- Ally Kathryn Yeager
- Angela Lang
- Anthony Darron Fox
- Becky A. Worman
- Bertrand B. Kre
- Bradley Poppie
- Brenda K. Scott
- Brian D. Coe and Stephanie Jean Kaus Coe, as joint tenants
- Bruce E. Lind
- Christine M. Krause and Rick A. Krause, as joint tenants
- Craig Banghart
- David Banghart
- Eleanor I. Johnson
- Highland Properties 3214 LLC
- Jay Murrell
- Jim L. Ells
- Judy A. Walton
- Lane Kaley, Jr. and Ann E. Kaley, as Co-Trustees of the Generation-Skipping Trust f/k/o Lane Kaley, Jr. and his descendants under paragraph B(1) of Article III of the Trust Agreement of Elizabeth R. Waidner dated March 5, 1996
- Lane Kaley, Jr. and Ann E. Kaley, as Co-Trustees of the Generation-Skipping Trust f/k/o Lane Kaley, Jr. and his descendants under paragraph B(1) of Article III of the Trust Agreement of Elizabeth R. Waidner dated March 5, 1996
- Larry Janney
- Linda J. Myklestad
- Melissa S. Eagan and Christopher H. Eagan, as joint tenants
- Mona K. Lind Norton
- Moore Family Trust
- Nikko Cucina, LLC
- Nikko Cucina, LLC
- Overland Energy Partners Fund I, LLC
- Overland Energy Partners Fund II, LLC

- Richard D. Shunk and Marna R. Shunk, as joint tenants
- Robert C. Brady
- Robert Frohman
- Robert Frohman and Bruce R. Frohman, as joint tenants
- ~~Ryan Guinn~~
- TAP Properties, Ltd.
- Temple Corporation
- Timothy J. Carsrud and Jessica J. Carsrud, as joint tenants
- Town of Severance
- William E. Stern
- William E. Stern
- William E. Stern

**Ice Man 2W-15-2N (API No. 05-123-46339) – Niobrara Formation – WSU No. 2.**

Lessees:

- None

Unleased Mineral Owners:

- Aaron M. Burd and Jamie A. Burd, as joint tenants
- Alan W. Lind
- Alberto A. Olivo
- Alison C. Koster
- Ally Kathryn Yeager
- Angela Lang
- Anthony Darron Fox
- Becky A. Worman
- Bertrand B. Kre
- Bradley Poppie
- Brenda K. Scott
- Brian D. Coe and Stephanie Jean Kaus Coe, as joint tenants
- Bruce E. Lind
- Christine M. Krause and Rick A. Krause, as joint tenants
- Craig Banghart
- David Banghart
- Eleanor I. Johnson
- Grayrock Minerals, LLC
- Highland Properties 3214 LLC
- Jay Murrell
- Jim L. Ells
- Judy A. Walton

- Lane Kaley, Jr. and Ann E. Kaley, as Co-Trustees of the Generation-Skipping Trust f/k/o Lane Kaley, Jr. and his descendants under paragraph B(1) of Article III of the Trust Agreement of Elizabeth R. Waidner dated March 5, 1996
- Lane Kaley, Jr. and Ann E. Kaley, as Co-Trustees of the Generation-Skipping Trust f/k/o Lane Kaley, Jr. and his descendants under paragraph B(1) of Article III of the Trust Agreement of Elizabeth R. Waidner dated March 5, 1996
- Larry Janney
- Linda J. Myklestad
- Melissa S. Eagan and Christopher H. Eagan, as joint tenants
- Mona K. Lind Norton
- Moore Family Trust
- Nikko Cucina, LLC
- Nikko Cucina, LLC
- Overland Energy Partners Fund I, LLC
- Overland Energy Partners Fund II, LLC
- Richard D. Shunk and Marna R. Shunk, as joint tenants
- Robert C. Brady
- Robert Frohman
- Robert Frohman and Bruce R. Frohman, as joint tenants
- ~~Ryan Guinn~~
- TAP Properties, Ltd.
- Temple Corporation
- Timothy J. Carsrud and Jessica J. Carsrud, as joint tenants
- Town of Severance
- William E. Stern
- William E. Stern
- William E. Stern