



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Thursday, June 4, 2026
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for CHEDDAR UNIT 1H
47-103-03838-00-00

Lateral Extension with Forced Pooling

ANTERO RESOURCES CORPORATION

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A handwritten signature in black ink, reading "H. Jason Harmon".

H. Jason Harmon
Chief

Operator's Well Number: CHEDDAR UNIT 1H
Farm Name: RAYMOND J AND LINDA S HEILMAN
U.S. WELL NUMBER: 47-103-03838-00-00
Horizontal 6A New Drill
Date Modification Issued: 06/04/2026

Promoting a healthy environment.

06/05/2026

WW-6B
(04/15)

API NO. 47- 103 - 03838
OPERATOR WELL NO. Cheddar Unit 1H MOD
Well Pad Name: Heilman Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Antero Resources Corporation Operator ID: 494507062 County: 103 - Wetzel District: Green Quadrangle: Pine Grove
- 2) Operator's Well Number: Cheddar Unit 1H MOD Well Pad Name: Heilman Pad
- 3) Farm Name/Surface Owner: Raymond J. and Linda S. Heilman Public Road Access: Ashland Ridge Road
- 4) Elevation, current ground: 1442' Elevation, proposed post-construction: 1442'
- 5) Well Type (a) Gas ☒ Oil ☐ Underground Storage ☐
Other ☐
(b) If Gas Shallow ☒ Deep ☐
Horizontal ☒
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7900' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#
- 8) Proposed Total Vertical Depth: 7900' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 17200' MD
- 11) Proposed Horizontal Leg Length: 7996.9'
- 12) Approximate Fresh Water Strata Depths: 388'
- 13) Method to Determine Fresh Water Depths: 47-103-00537
- 14) Approximate Saltwater Depths: 2071'
- 15) Approximate Coal Seam Depths: N/A
- 16) Approximate Depth to Possible Void (coal mine, karst, other): N/A
- 17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes ☐ No ☒
- (a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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WW-6B
(04/15)

API NO. 47- 103 - 03838
OPERATOR WELL NO. Cheddar Unit 1H MOD
Well Pad Name: Heilman Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	438'	438' ✓	CTS, 456 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500'	2500'	CTS, 1018 Cu. Ft. ✓
Intermediate							
Production	5-1/2"	New	P-110	23#	17200'	17200' ✓	3406 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L ✓	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630 ✓	2500	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs
Anticipated Max Rate - 80 bpm

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 19.62 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.29 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake

Intermediate: Class A/L cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

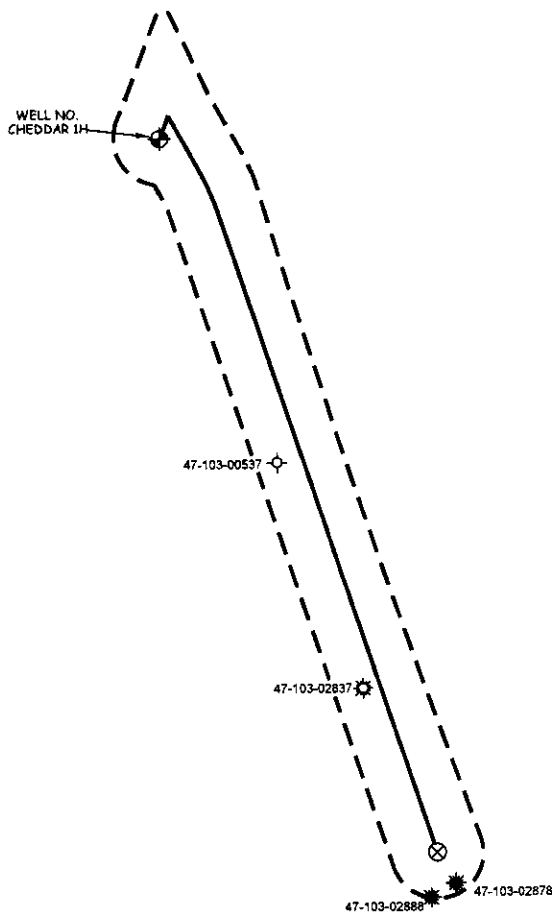
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed.

HEILMAN PAD ANTERO RESOURCES CORPORATION



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WILLOW LAND SURVEYING, PLLC
P.O. BOX 17, PENNSBORO, WV 26415
(304) 659-1717

JOB #: 25-030WA

FILE: CHEDDAR1HAOR.DWG

DATE: 04/24/26

DRAWN BY: T.B.S.

SCALE : 1-INCH = 2000-FEET



06/05/2026

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
4710300537	J.C. MCLEOD/DOWNEY HRS	A205	ALAMCO INC	ALAMCO INC	3,219			Weir, Benson, Alexander
4710302837	BRIGGS JERRY D	W 1641	HAUGHT ENERGY CORP	HAUGHT ENERGY CORP	2,536	2375 - 2536	Big Injun	Weir, Benson, Alexander
4710302888	BROWN FRANCIS D & F	408 S-2H	TRIBUNE RESOURCES LLC	ASCENT RESOURCES-MAR	13,514	7916 - 13472	Marcellus	
4710302878	BROWN FRANCIS D & F	409 S-1HA	TRIBUNE RESOURCES LLC	ASCENT RESOURCES-MAR	14,858	8859 - 14719	Marcellus	

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LATITUDE 39°37'30"

5,771'

LATITUDE 39°37'30"

2,759' TO BOTTOM HOLE

Antero Resources
Corporation
Well No. Cheddar #1H

GREEN DISTRICT - WETZEL COUNTY	
4-28	Terry Long
4-42	Raymond & Linda Heilman
4-52	Raymond & Linda Heilman
4-53	McKimmie Cemetery
4-54	Raymond & Linda Heilman
4-55	Raymond & Linda Heilman
4-57	David & Jami Morrison
5-8	Dallison Lumber Inc.
5-13	Dallison Lumber Inc.
5-14	Dallison Lumber Inc.
5-15.1	Douglas Anderson
9-4	Raymond & Linda Heilman
9-11	Wilma Morris
9-13	Nancy Rexrode, Et Al
10-2	Judy Fryzel, Et Al
10-3	Dallison Lumber Inc.
10-5	Colerain & Amanda McCordle
10-5.1	Dallison Lumber Inc.
10-6	Nancy Rexrode Et Al
10-7	Wilda Yeager
10-8	Clifford Briggs Et Al
10-9	Clifford Briggs Et Al
10-10	Wilda Yeager
10-11	Clifford Briggs Et Al
10-13	Wilda Yeager
10-14	Clifford Briggs Et Al
10-15	Clifford Briggs Et Al
10-16	Clifford Briggs Et Al
10-18	Ronald & Kevin Hall
10-19	Clifford Briggs Et Al
10-20	Clifford Briggs Et Al
10-21	Ronald & Kevin Hall
GRANT DISTRICT - WETZEL COUNTY	
6-1	Dallison Lumber Inc.
6-8	Freeda Brown
6-9	David Gifford

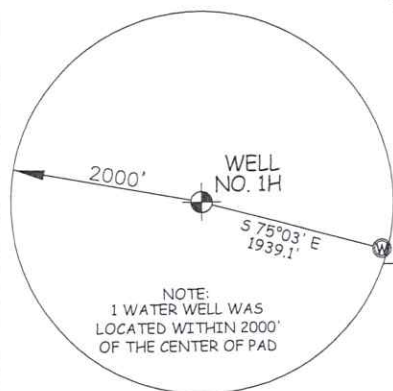
NOTES:
WELL 1H TOP HOLE INFORMATION:
N: 405,001ft E: 1,665,522ft
LAT: 39°36' 21.23" N LON: 80°41' 13.73"
BOTTOM HOLE INFORMATION:
N: 397,253ft E: 1,668,433ft
LAT: 39°35' 05.03" N LON: 80°40' 35.24"
WEST VIRGINIA COORDINATE
SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM
MEASUREMENTS TAKEN WITH
TRIMBLE GEOXT SUBMETER
MAPPING GRADE GPS UNIT.
PLAT ORIENTATION, CORNER,
AND WELL REFERENCE TIE LINES
ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,384,073m E: 526,874m
BOTTOM HOLE INFORMATION:
N: 4,381,727m E: 527,800m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,382,696ft E: 1,728,535ft
POINT OF ENTRY INFORMATION:
N: 14,382,523ft E: 1,728,871ft
BOTTOM HOLE INFORMATION:
N: 14,375,000ft E: 1,731,575ft

LESSOR

B	MARTHA CLARK REVOCABLE TRUST
C	RAYMOND J. HEILMAN
E	CAROL SUE HAUGHT
F	NANCY LEE REXRODE
H	CHESAPEAKE APPALACHIA, LLC.
J	J. WELLS EAKIN
K	ACROPOLIS INC.
L	EDWARD B. KIRK AND SHARON F. KIRK
M	BLACK GOLD GROUP, LTD.
N	RAYMOND J. HEILMAN
P	ADOLPH A. NEIDERMEYER
Q	WILDA N. & ROBERT L. YEAGER



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION
OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 25-030WA

DRAWING # CHEDDAR1H

SCALE 1" = 2000'

MINIMUM DEGREE OF
ACCURACY SUBMETERPROVEN SOURCE OF ELEV.
SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND

- Surface Owner Boundary Lines +/-
- - - Adjoining Surface Tracts +/-
- ⊕ Found monument, as noted

THOMAS SUMMERS P.S. 2109

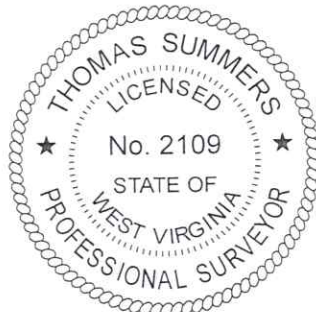
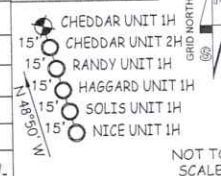
DATE 04/20/26

OPERATOR'S WELL# CHEDDAR UNIT #1H

47 - 103 - 03838

STATE COUNTY PERMIT

PAD LAYOUT



NOTE
NO OCCUPIED DWELLINGS OR BUILDINGS TWO
THOUSAND FIVE HUNDRED (2,500) SQUARE
FEET OR LARGER USED TO HOUSE OR SHELTER
DAIRY CATTLE OR POULTRY HUSBANDRY ARE
LOCATED WITHIN ONE (1) MILE OF THE PAD.
(625) FEET

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW

LOCATION: ELEVATION PROPOSED - 1,442' WATERSHED FISHING CREEK

QUADRANGLE PINE GROVE 7.5' DISTRICT GREEN COUNTY WETZEL
SURFACE OWNER RAYMOND J. & LINDA S. HEILMAN ACREAGE 96 ACRES +/-

OIL & GAS ROYALTY OWNER RAYMOND J. HEILMAN LEASE ACREAGE 96 ACRES +/-

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL
FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-BHL

PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION MARCELLUS

ESTIMATED DEPTH 7,900' TVD 17,200' MD

WELL OPERATOR ANTERO RESOURCES CORP.

DESIGNATED AGENT CONRAD BASTON

ADDRESS 1615 WYNKOOP ST.

ADDRESS 535 WHITE OAKS BLVD

FORM WW-6

DENVER, CO 80202

BRIDGEPORT, WV 26330

REFERENCES



INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>B: Martha Clark Revocable Trust Lease</u> Martha Clark Revocable Trust	Antero Resources Corporation	1/8+	307A/574
<u>E: Carol Sue Haught Lease</u> Carol Sue Haught	Antero Resources Corporation	1/8+	330A/600
<u>F: Nancy Lee Rexrode Lease</u> Nancy Lee Rexrode	Antero Resources Corporation	1/8+	293A/932
<u>E: Carol Sue Haught Lease</u> Carol Sue Haught	Antero Resources Corporation	1/8+	330A/600
<u>H: Chesapeake Appalachia, LLC Lease</u> Chesapeake Appalachia, LLC SWN Production Company Antero Exchange Properties, Inc	SWN Production Company Antero Exchange Properties, Inc Antero Resources Corporation	Assignment Assignment Name Change	157A/640 177A/533 13/311
<u>J: J. Wells Eakin Lease</u> J. Wells Eakin Mountain Link Associates, Inc Rockford Energy, LLC Montani Energy, LLC	Mountain Link Associates, Inc Rockford Energy, LLC Montani Energy, LLC Antero Resources Corporation	1/8 Assignment Assignment Assignment	108A/869 122A/882 394/435 427A/250
<u>L: Edward B. Kirk and Sharon F. Kirk Lease</u> Edward B. Kirk and Sharon F. Kirk Mountain Link Associates, Inc Whittle Corporation Montani Energy, LLC Antero Resources Appalachian Corporation	Mountain Link Associates, Inc Whittle Corporation Montani Energy, LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Assignment Name Change	88A/356 91A/280 130A/1 130A/658 121/8

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

***Cotenancy Utilization** - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

****Pooling/Unitization** – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

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- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>K: Acropolis Inc. Lease</u>	<u>Acropolis Inc.</u>	<u>Antero Resources Corporation</u>	<u>1/8+</u>	<u>292A/682</u>

***Cotenancy Utilization** - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

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Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation

By: Tim Rady

Its: Senior Vice President of Land



May 14th, 2026

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Mr. Taylor Brewer
601 57th Street
Charleston, WV 25304

Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved wells on the Wagner B Pad & Heilman Pad. We are requesting to extend the horizontal lateral length which will change the bottom hole locations of the Mason Unit 1H, Cheddar Unit 1H, Cheddar Unit 2H, Randy Unit 1H & Haggard Unit 1H wells.

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the leases we will be drilling into
- REVISED Mylar Plat, which shows the new bottom hole location

If you have any questions please feel free to contact me at (303) 357-7373.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "CW", is written over a horizontal line.

Carly Wren
Permitting Agent
Antero Resources Corporation

Enclosures

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