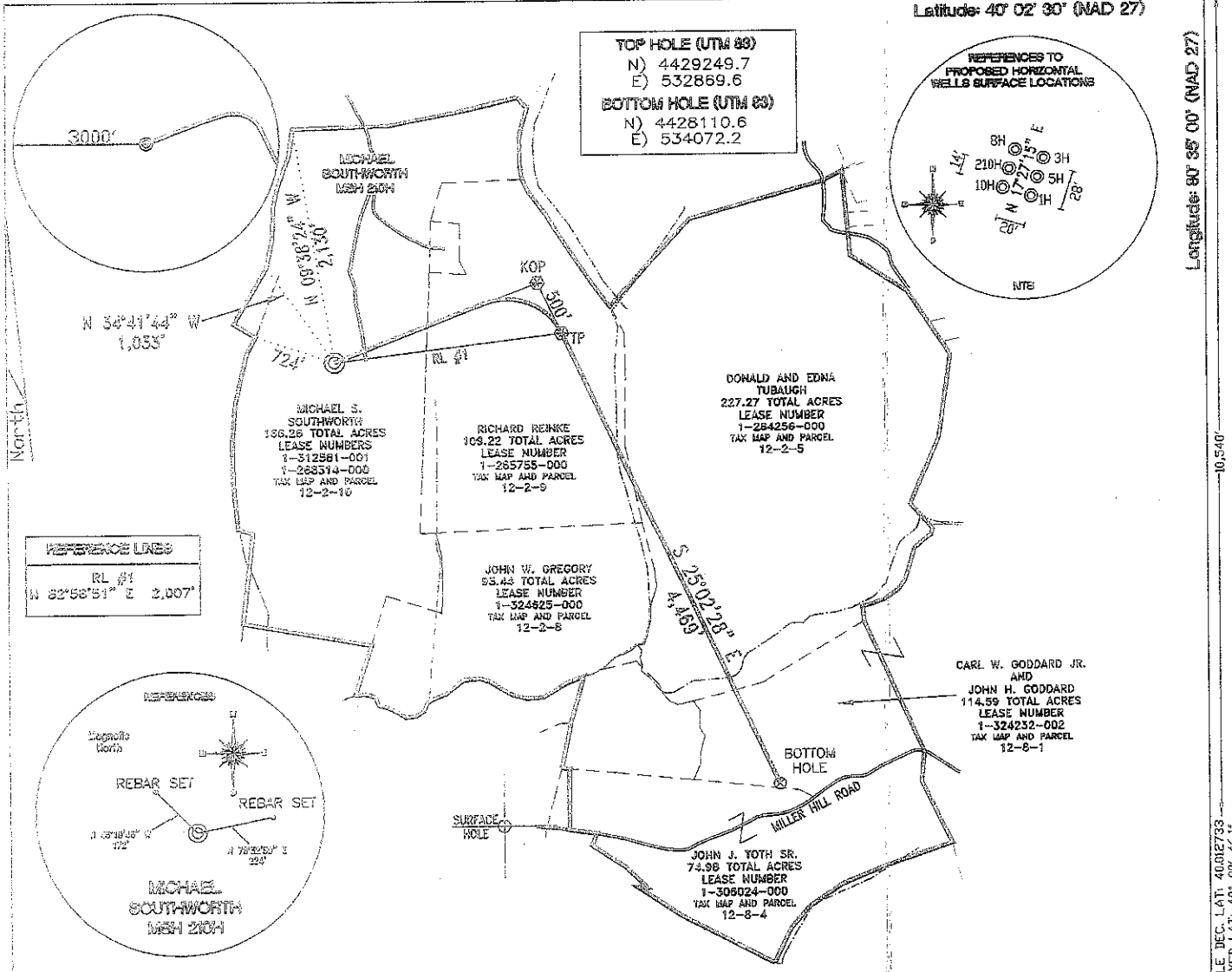


SURFACE HOLE DEC. LONG: 80.615059
 SURVEYED LONG: 80° 36' 54.2"

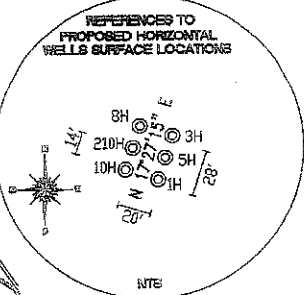
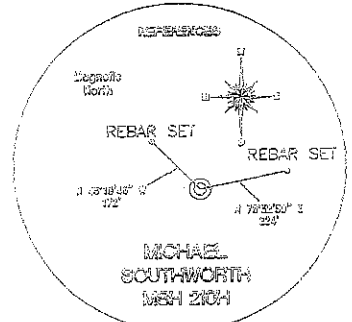
8,680'

Latitude: 40° 02' 30" (NAD 27)

Longitude: 80° 35' 00" (NAD 27)



REFERENCE LINES
 RL #1
 N 82°58'51" E 2,007'

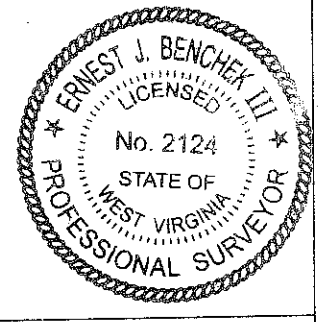


TOP HOLE (NAD 83) N) 552956.0 E) 1656236.1 LAT.) 40°00'46.1" LONG.) 80°36'53.5" DEC. LAT.) 40.012607 DEC. LONG.) 80.614857	KOP (NAD 83) N) 553654.3 E) 1658016.6 LAT.) 40°00'53.2" LONG.) 80°36'30.7" DEC. LAT.) 40.014784 DEC. LONG.) 80.608532	TP (NAD 83) N) 553201.3 E) 1658228.2 LAT.) 40°00'48.8" LONG.) 80°36'27.9" DEC. LAT.) 40.013548 DEC. LONG.) 80.607756	BOTTOM HOLE (NAD 83) N) 549152.0 E) 1660120.1 LAT.) 40°00'09.0" LONG.) 80°36'03.0" DEC. LAT.) 40.002496 DEC. LONG.) 80.600825
TOP HOLE (NAD 27) N) 552919.3 E) 1687671.0 LAT.) 40°00'45.8" LONG.) 80°36'54.2" DEC. LAT.) 40.012733 DEC. LONG.) 80.615059	KOP (NAD 27) N) 553617.5 E) 1689451.4 LAT.) 40°00'53.0" LONG.) 80°36'31.4" DEC. LAT.) 40.014710 DEC. LONG.) 80.608734	TP (NAD 27) N) 553164.5 E) 1689663.0 LAT.) 40°00'48.5" LONG.) 80°36'28.7" DEC. LAT.) 40.013474 DEC. LONG.) 80.607959	BOTTOM HOLE (NAD 27) N) 549115.2 E) 1691554.8 LAT.) 40°00'08.7" LONG.) 80°36'03.7" DEC. LAT.) 40.002422 DEC. LONG.) 80.601028

REFERENCE NOTES
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Marshall County, West Virginia SEPTEMBER 2011 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS Drafted by E.A.M.

FILE #: CHE 031
 DRAWING #: 2022
 SCALE: 1" = 1400'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: *[Signature]*
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 5TH STREET CHARLESTON, WV 25304

DATE: MARCH 29, 2012

OPERATOR'S WELL #: MICHAEL SOUTHWORTH MSH 210H

API WELL #: 47 51 01562 H6A
 STATE COUNTY PERMIT

Well Type: Oil Waste Dipsal Production Deep Gas Liquid Injection Storage Shallow

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,270'

COUNTY/DISTRICT: MARSHALL / SANDHILL QUADRANGLE: VALLEY GROVE, WV.

SURFACE OWNER: James Litman ACREAGE: 166.26 +/-

OIL & GAS ROYALTY OWNER: MICHAEL S. SOUTHWORTH ACREAGE: 756.96 +/-

LEASE NUMBERS: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,405' TMD: 11,519'

WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC GILLESPIE

ADDRESS: PO BOX 18496 ADDRESS: PO BOX 6070

CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CITY: CHARLESTON STATE: WV ZIP CODE: 25304

SURFACE HOLE DEC. LAT: 40° 00' 46.1" SURVEYED LAT: 40° 00' 46.1"

08/03/2012

51-1562

WELL MICHAEL SOUTHWORTH MSH 210H
QUAD VALLEY GROVE, WV

