EXHIBIT A

PROPOSED AREA OF OPERATION
[Form 442; lines 5(c) and 5 (c)(1)]

The proposed test sites for the fixed wireless remotes and mobile master stations will be within a twenty-five mile radius of the following five locations:

Location	Coordinates (LAT)	(LON)
Auburn, AL	32° 36'	85° 29'
Montgomery, AL	32° 24'	86° 13'
Tallassee, AL	32° 30'	85° 54'
Athens, GA	33° 58'	83° 23'
Flint River, GA	32° 39'	84° 06'
Gwinnett County, GA	33° 51'	83° 58'

EXHIBIT B

NARRATIVE STATEMENT OF PROPOSED PROGRAM
OF RESEARCH AND EXPERIMENTATION
[Form 442; lines 10(a), (b) & (c)]

10(a). The experimental program will evaluate various prototype configurations of Schlumberger's proposed spread spectrum transmitters, including various output powers (up to 100 mW) and board designs, to determine the optimum configuration for system reliability in "normal" and harsh operating environments. The proposed spread spectrum system operates in the 902-928 MHz ISM band and has been determined by the Commission's Office of Engineering and Technology to meet the requirements of Section 15.247 of the Commission's Rules and Regulations. The following describes the theory of operation of the proposed spread spectrum system:

1. The transmitter hops in a pseudorandom sequence among 64 hopping channels, using each frequency, on average, the same. The average occupancy on any frequency is less than 0.4 seconds in any 20 second period. If the data stream into the transmitter exceeds the dwell time of any transmission on a particular frequency, the transmitter will encode the next frequency to be used into the data stream, then hop to the next frequency and continue the transmission.

2. The receiver uses software-controlled filtering to provide an input bandwidth that matches the transmitter bandwidth.

3. The receiver "scans" transmitter hopping frequencies at a very rapid rate in order to sense the transmitter carrier and "hop" in synchronization with the transmitter. The maximum hopping delay between the transmitter and receiver is less than eight microseconds. If the transmitter uses more than one frequency to complete a transmission, the receiver scanning is fast enough to hop to the next frequency in sufficient time to complete the data transfer. The net effect is a transmitter/receiver pair that work together as a frequency hopping spread spectrum system.

Remote spread spectrum prototype transmitters will be stationary and attached to electronic meter units at, or below, ground level. Prototype spread spectrum receiver units will be installed in a vehicle which will travel within the proposed areas of operation (identified in EXHIBIT A), for acquiring the meter data. A sufficient number of remote radios will be employed in order to obtain meaningful results. It is believed that testing

much fewer than about 500 units per location would prove inconclusive. Therefore, each location tested will use up to 500 total remote units. Reliability data will be accumulated and the various spread spectrum configurations will be compared to determine the optimum configuration.

10(b). The experimental program will determine: (1) the optimum module configuration for reliable communications; (2) the feasibility for reliable communications between a mobile master station and below ground remote units; (3) the minimum power level for reliable communications; (4) the effectiveness of weatherproof encapsulation for wireless communications; and (5) the optimum antenna type and orientation for reliable below ground communications.

10(c). The development of products resulting from the experimental program will facilitate the automation of meter reading in difficult locations that is both environmentally and aesthetically acceptable. The positive results of the program will expand the potential uses for remote wireless data gathering.

ATTACHMENT A

DETERMINATION OF COMPLIANCE WITH SECTION 15.247