Greenhouse Gas Application: An Exploration and Production Perspective
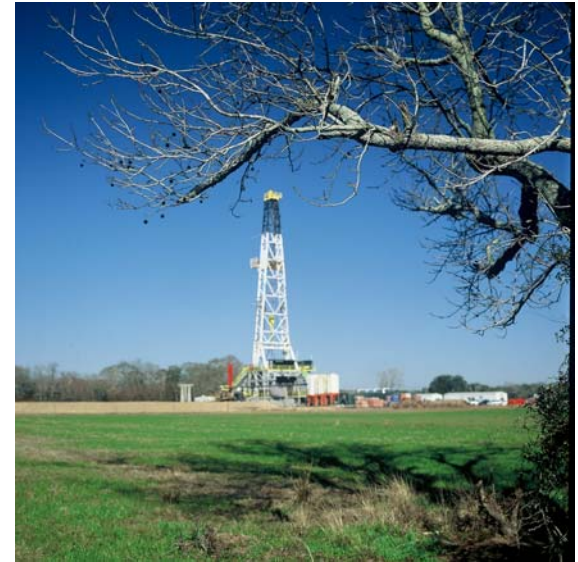
By:

Ernie Johnson

Newfield Exploration

Agenda

- **About Newfield**

- **Reasons & Objectives**

- **Software Implementation**

- **What We've Learned So Far**

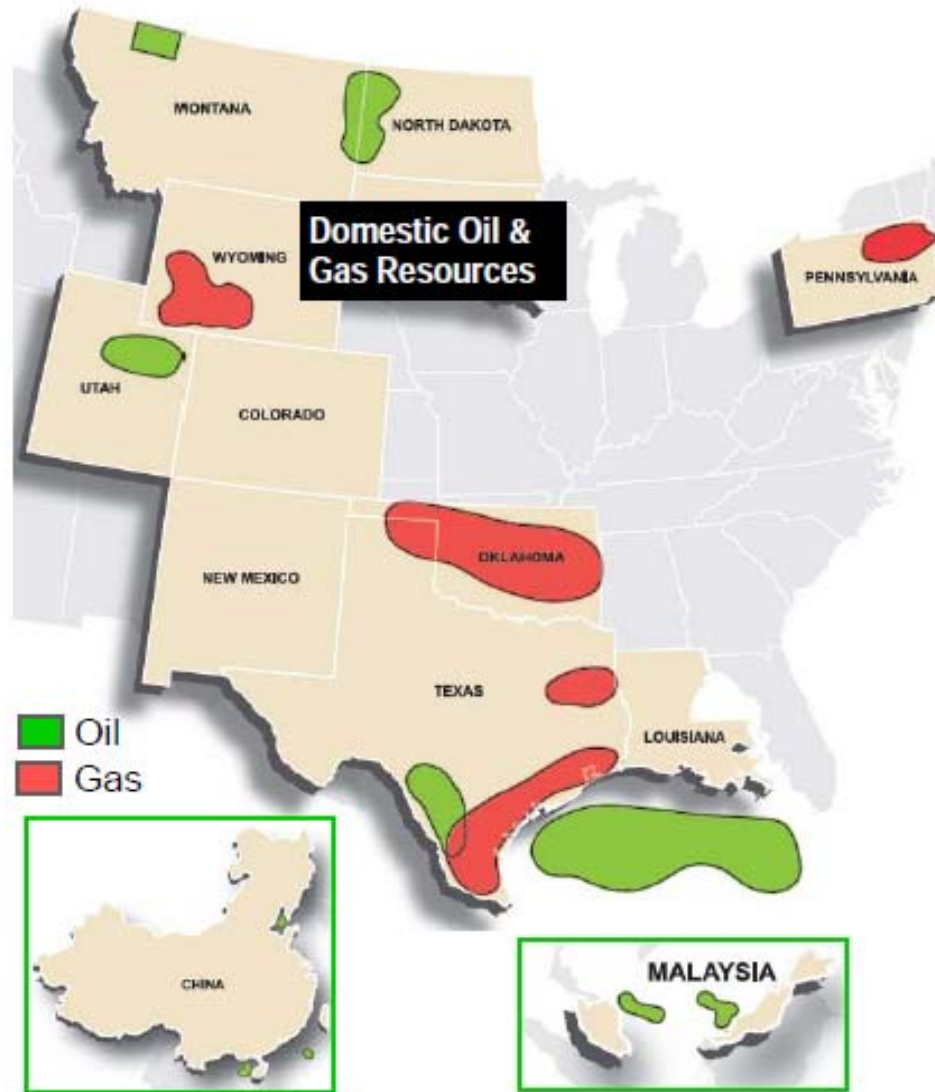# Who Is Newfield Exploration?

Newfield is a growing independent oil and natural gas company with a balanced program of exploration, production and acquisitions. We are traded on the New York Stock Exchange under the ticker "NFX".

THE FACTS

Proved Reserves:	2.9 Tcfe, 70% natural gas, 93% domestic
Enterprise Value:	~$7 billion
Office Locations:	Houston, Texas (Headquarters), Tulsa, Oklahoma; Denver, Colorado; Kuala Lumpur, Malaysia; Beijing, China
Areas of Operation:	Mid-Continent, Rocky Mountains, Onshore Gulf Coast, Gulf of Mexico, offshore Malaysia and China
Employees:	>1,000

Areas of Operation

Domestic Oil & Gas Resources

Oil
Gas

GHG Vision

- **Why measure GHG Emissions "Back Then"?**

  - *Achieve Corporate social responsibility*

  - *Manage risk and identify opportunities*

  - *Improve competitive advantage*

  - *Participate in policy discussions*

  - *Participate in voluntary GHG programs*

  - *Provide stakeholder information*

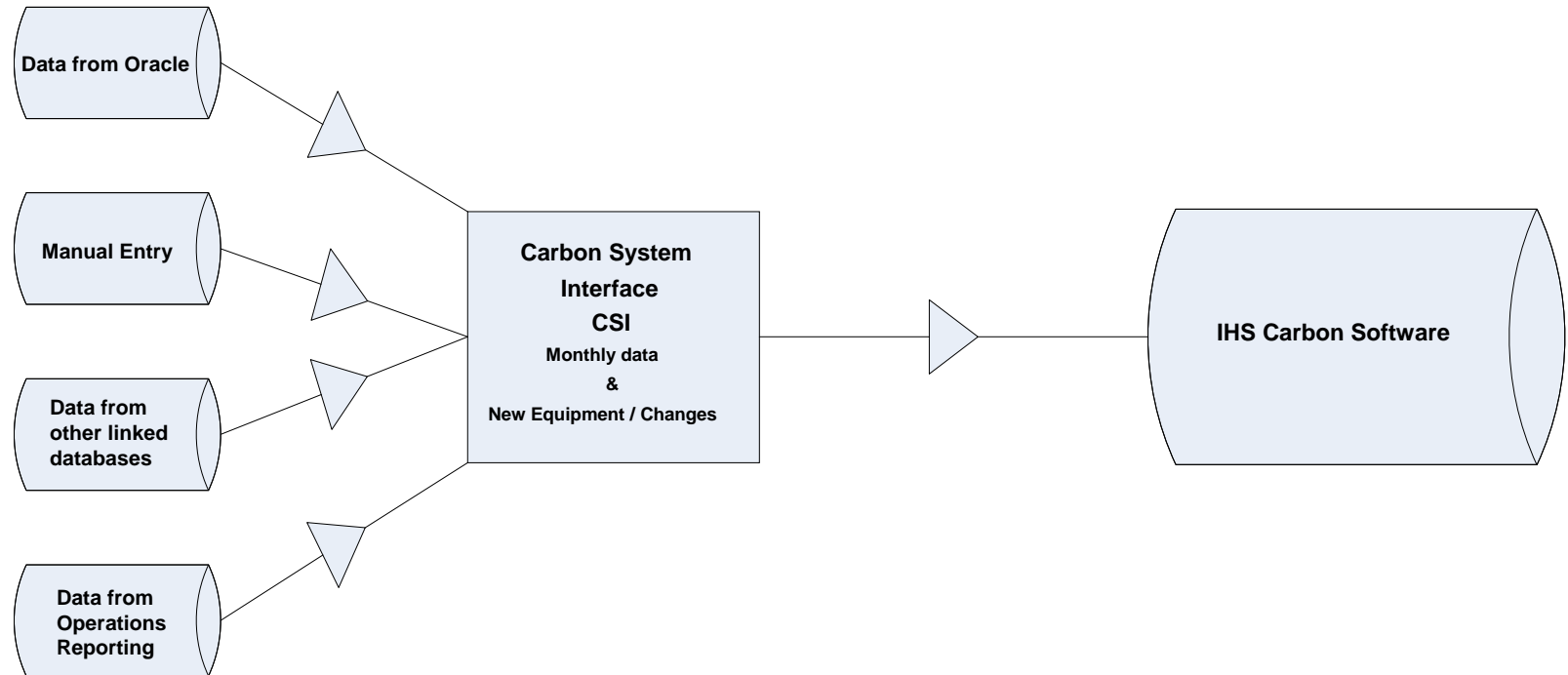 - ***Prepare for pending federal legislation***

How We Manage Our GHG Data?

- **Select Software that met Newfield's needs and would provide the Company with:**

  - *Its Carbon Footprint*
  - *Emission reduction opportunities*
  - *GHG reports*
  - *Meeting air permitting and other emission inventory requirements*
  - *Future operations scoping and evaluation*

- **Needed every aspect of data to represent the dynamic environment of our business**

GHG Data Flow Management

- **Newfield's Carbon System Interface (CSI) allows for**

  - *Real time data interface*
    - **Oracle**
    - **Link data from other sources**

  - *Isolate production accounting*

  - *Updates to equipment*

  - *Used in QA/QC process*

Process for Data Flow Management

Data from Oracle

Manual Entry

Data from other linked databases

Data from Operations Reporting

Carbon System Interface CSI
Monthly data
&
New Equipment / Changes

IHS Carbon Software

CSI – Hierarchy

CSI - Validation

Software Implementation

- **Selected IHS OpsInfo**
  - *Established Newfield Selection Criteria*

- **Selected Software Implementation Manager to assist with:**
  - *Determine Emission Sources to include*
  - *Develop Emission Profiles*
  - *Process for Data Management*
    - **Internally developed Carbon System Interface (CSI)**

- **Training and QA/QC**
  - *Core User Training – Operations and IT*
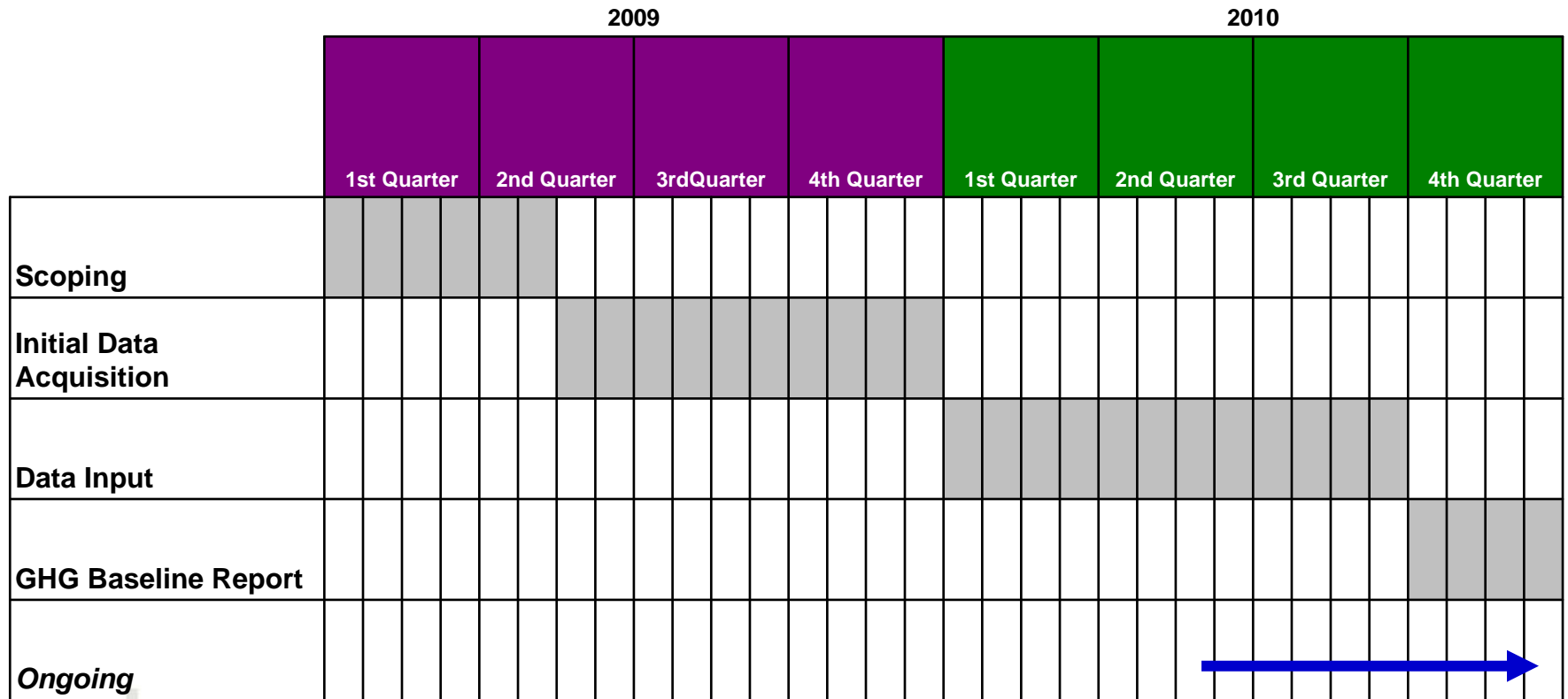 - *Develop data validation process*

Ops Web Interface

Project Implementation Strategy & Timing

	2009				2010			
	1st Quarter	2nd Quarter	3rdQuarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Scoping	▓▓							
Initial Data Acquisition		▓	▓	▓				
Data Input					▓	▓	▓	
GHG Baseline Report								▓
Ongoing					→→→→→→→→→→→→→→→			

Review

- **Reasons & Objectives**
- **Software Selection**
- **Determination of Sources**
- **Data Collection**
- **Calculation Methodologies / Emission Factors**
- **Training and QA/QC**

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