

FORM 51-102F3
MATERIAL CHANGE REPORT

Item 1. Reporting Issuer

HIGH PLAINS URANIUM, INC. (the "Issuer")
1718 Capitol Avenue
Cheyenne, WY 82001 USA

Item 2. Date of Material Change

January 31, 2006

Item 3. News Release

The Issuer issued a press release via a Canadian news wire. A copy of which has been filed on SEDAR.

Item 4. Summary of Material Change

High Plains Uranium, Inc. recently has acquired new surface and mineral rights on the properties in the state of Wyoming. In addition to the properties listed in High Plains' IPO prospectus, the additional properties the Company acquired are East Douglas, Sweet Claims, and QC Claims in Wyoming. High Plains now controls 1,280 acres (518 hectares) of Wyoming State mineral leases, 20 claims with 1,480 acres (599 hectares), and 222 (90 hectares) of fee mineral leases.

Item 5. Full Description of Material Change

High Plains Uranium, Inc. announced today the acquisition of new surface and mineral rights on the properties in the state of Wyoming. These strategic acquisitions are a part of High Plains' aggressive property acquisition and development strategy in the Western United States. Including High Plains' Allemand Ross, Wyoming and Swinney Switch, Texas projects, the Company controls mineral rights on a number of uranium properties in Wyoming that total in excess of 45,000 acres (18,211 hectares) and in Texas that total in excess of 6,000 acres (2,400 hectares). In addition to the properties listed in High Plains' IPO prospectus (October 14, 2005), the Company has acquired the following additional properties.

East Douglas - Powder River Basin, Wyoming

High Plains controls 1,280 acres (518 hectares) of Wyoming State mineral leases, 20 claims with 1,480 acres (599 hectares), and 222 acres (90 hectares) of fee mineral leases. Mineral right and property acquisition is ongoing. This property lies on the southeast margin of the Powder River Basin in Converse County. It is an exploration target with uranium mineralization reported in exploration drillholes drilled in the early 1980s into the Chadron Member of the White River Formation. The Company is contemplating joint venturing the project.

Sweet Claims - Gas Hills District, Wyoming

The Sweet Claims are located above Beaver Rim near the Gas Hills District. High Plains has staked 77 claims on 1,540 acres (623 hectares) based on the observation of dense drill-hole patterns on the ground from previous operators.

QC Claims - Shirley Basin, Wyoming

High Plains controls a block of 27 lode claims on 390 acres (158 hectares) in Carbon County adjacent to the eastern side of uranium deposits in the Shirley Basin mined by Kerr McGee and Utility Fuels Inc. High Plains examined drillhole logs in the public record that document close spaced drilling in the 1960's and 1970's by Kerr McGee Corporation for the Petrotomics Joint Venture. Approximately 43% of 1,455 drillhole logs examined contained gamma log reruns indicating the presence of uranium mineralization tied to the mineralized trends mined in nearby open-pit mines. The reruns were dominantly characteristic of 'limb' mineralization associated with C-roll deposits. Drillhole maps were not available and further study, with maps, will be needed. High Plains will seek a pattern of mineralization that will indicate the presence of fronts that will then be evaluated to estimate resources on this tract. The Company plans to continue land acquisitions in Shirley Basin.

Item 6. Reliance on subsection 7.1(2) or (3) of National Instrument 51-102

N/A

Item 7. Omitted Information

N/A

Item 8. Senior Officers

The following senior officer of the Issuer is knowledgeable about the material change and may be contacted by the Commission at the following telephone number:

Jim Baughman
Phone: (307) 433-8708

The foregoing accurately discloses the material change referred to herein.

Dated at Cheyenne, Wyoming this 31st day of January 2006.

High Plains Uranium, Inc.

"Jim Baughman"

Jim Baughman,
President & Chief Executive Officer